HITACHI
Inspire the Next

Projector

CP-X809W

ENGLISH
FRANÇAIS
DEUTSCH
ESPAÑOL
ITALIANO
NORSK
NEDERLANDS
PORTUGUÊS
中文
한국어
SVENSKA
РУССКИЙ
SUOMI
POLSKI

User's Manual (concise)
Please read this user's manual thoroughly to ensure the proper use of this product.

Manuel d'utilisation (résumé)
Nous vous recommandons de lire attentivement ce manuel pour bien assimiler le fonctionnement de l'appareil.

Bedienungsanleitung (Kurzform)
Um zu gewährleisten, dass Sie die Bedienung des Geräts verstanden haben, lesen Sie dieses Handbuch bitte sorgfältig.

Manual de usuario (resumido)
Lea atentamente el manual de usuario del proyector para garantizar un uso adecuado del mismo.

Manuale d'istruzioni (condensato)
Vi preghiamo di leggere attentamente il manuale d'istruzioni per garantire una corretta comprensione delle istruzioni.

Brukerhåndbok (konsis)
Vennligst les denne brukerhåndbok grundig for å være garantert driftssikker bruk.

Gebruiksaanwijzing (beknopt)
Lees deze gebruikershandleiding grondig door, zodat u de werking ervan begrijpt en correct gebruik verzekerd is.

Manual do Usuário (resumido)
Leia atentamente o presente manual do utilizador para garantir a utilização correcta por via da sua compreensão.

使用说明书（简易版）
请仔细阅读本《使用说明书》，在理解的基础上正确使用。

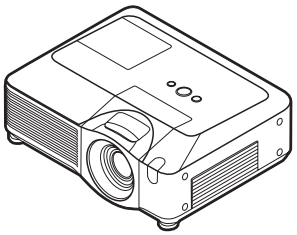
사용 설명서 (휴대용)
본 사용자 설명서를 잘 읽으시고 이해하신 후 , 올바르게 사용해 주십시오 .

Bruksanvisning (koncis)
Läs denna bruksanvisning noga för att förstå alla instruktionerna för ett korrekt bruk.

Руководство пользователя (краткий)
Пожалуйста, внимателъно прочтите данное руководство полъзователя для ознакомления и нравильно использования.

Käyttäjän ohjekirja (suppea)
Lue käyttäjän ohjekirja huolellisesti varmistaaksesi, että ymmärrät miten laitetta käytetään oikein.

Podręcznik użytkownika (zwięzły)
Przeczytaj dokładnie i ze zrozumieniem niniejszy podręcznik użytkownika, aby zapewnić prawidłowe użytkowanie urządzenia.



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• Воспроизведение, передача и использование данного документа или его содержания запрещено без письменного разрешения.

HUOM! • Tämän ohjekirjan tiedot voivat muuttua ilman eri ilmoitusta. • Valmistaja ei ota mitään vastuuta ohjekirjassa mahdollisesti olevista virheistä. • Dokumentin tai sen sisällön jäljentäminen, siirto tai käyttö ei ole sallittua ilmannimenomaista kirjallista valtuutusta.

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HITACHI
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Read this Safety Guide first.

Projector

User's Manual - Safety Guide

Thank you for purchasing this projector.

WARNING • Before using, read these user's manuals of this projector to ensure correct usage through understanding. After reading, store them in a safe place for future reference. Incorrect handling of this product could possibly result in personal injury or physical damage. The manufacturer assumes no responsibility for any damage caused by mishandling that is beyond normal usage defined in these manuals of this projector.

NOTE • The information in this manual is subject to change without notice.
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About The Symbols

Various symbols are used in this manual, the user's manual and on the product itself to ensure correct usage, to prevent danger to the user and others, and to prevent property damage. The meanings of these symbols are described below. It is important that you read these descriptions thoroughly and fully understand the contents.

WARNING	This symbol indicates information that, if ignored, could possibly result in personal injury or even death due to incorrect handling.
CAUTION	This symbol indicates information that, if ignored, could result possibly in personal injury or physical damage due to incorrect handling.

Typical Symbols

This symbol indicates an additional warning (including cautions). An illustration is provided to clarify the contents.

This symbol indicates a prohibited action. The contents will be clearly indicated in an illustration or nearby (the symbol to the left indicates that disassembly is prohibited).

This symbol indicates a compulsory action. The contents will be clearly indicated in an illustration or nearby (the symbol to the left indicates that the power plug should be disconnected from the power outlet).

Safety Precautions

⚠ WARNING

Never use the projector if a problem should occur.

Abnormal operations such as smoke, strange odor, no image, no sound, excessive sound, damaged casing or elements or cables, penetration of liquids or foreign matter, etc. can cause a fire or electrical shock.
In such case, immediately turn off the power switch and then disconnect the power plug from the power outlet. After making sure that the smoke or odor has stopped, contact your dealer. Never attempt to make repairs yourself because this could be dangerous.

Disconnect the plug from the power outlet.

• The power outlet should be close to the projector and easily accessible.

Use special caution for children and pets.

Incorrect handling could result in fire, electrical shock, injury, burn or vision problem.
Use special caution in households where children and pets are present.

Do not insert liquids or foreign object.

Penetration of liquids or foreign objects could result in fire or electrical shock. Use special caution in households where children are present.
If liquids or foreign object should enter the projector, immediately turn off the power switch, disconnect the power plug from the power outlet and contact your dealer.

• Do not place the projector near water (ex. a bathroom, a beach, etc.).
• Do not expose the projector to rain or moisture. Do not place the projector outdoors.
• Do not place flower vases, pots, cups, cosmetics, liquids such as water, etc on or around the projector.
• Do not place metals, combustibles, etc on or around the projector.
• To avoid penetration of foreign objects, do not put the projector into a case or bag together with any thing except the accessories of the projector, signal cables and connectors.

Never disassemble and modify.

The projector contains high voltage components. Modification and/or disassembly of the projector or accessories could result in fire or electrical shock.

Do not disassemble.

• Never open the cabinet.
• Ask your dealer to repair and clean insider.

Do not give the projector any shock or impact.

If the projector should be shocked and/or broken, it could result in an injury, and continued use could result in fire or electrical shock.
If the projector is shocked, immediately turn off the power switch, disconnect the power plug from the power outlet and contact your dealer.

Do not place the projector on an unstable surface.

If the projector should be dropped and/or broken, it could result in an injury, and continued use could result in fire or electrical shock.

• Do not place the projector on an unstable, slant or vibrant surface such as a wobbly or inclined stand.
• Use the caster brakes placing the projector on a stand with casters.
• Do not place the projector in the side up position, the lens up position or the lens down position.
• In the case of a ceiling installation or the like, contact your dealer before installation.

Safety Precautions (continued)

⚠ WARNING

Be cautious of High temperatures of the projector.

High temperatures are generated when the lamp is lit. It could result in fire or burn. Use special caution in households where children are present.
Do not touch about the lens, air fans and ventilation openings during use or immediately after use, to prevent a burn. Take care of ventilation.

• Keep a space of 30 cm or more between the sides and other objects such as walls.
• Do not place the projector on a metallic table or anything weak in heat.
• Do not place anything about the lens, air fans and ventilation openings of the projector.
• Never block the air fan and ventilation openings.
• Do not cover the projector with a tablecloth, etc.
• Do not place the projector on a carpet or bedding.

Never look through the lens or openings when the lamp is on.

The powerful light could adversely affect vision.
Use special caution in households where children are present.

Use only the correct power cord and the correct power outlet.

Incorrect power supply could result in fire or electrical shock.

• Use only the correct power outlet depending on the indication on the projector and the safety standard.
• The enclosed power cord must be used depending on the power outlet to be used.

Be cautious of the power cord connection.

Incorrect connection of the power cord could result in fire or electrical shock.
• Do not touch the power cord with a wet hand.

• Check that the connecting portion of the power cord is clean (with no dust), before using. Use a soft and dry cloth to clean the power plug.
• Insert the power plug into a power outlet firmly. Avoid using a loose, unsound outlet or contact failure.

Be sure to connect with ground wire.

Connect the ground terminal of AC inlet of this unit with the ground terminal provided at the building using the correct power cord; otherwise, fire or electric shock can result.

Surely connect the ground wire.

• Don’t take the core of power cord away.

Safety Precautions (continued)

⚠ WARNING

Be careful in handling the light source lamp.

The projector uses a high-pressure mercury glass lamp made of glass. The lamp can break with a loud bang, or burn out. When the bulb bursts, it is possible for shards of glass to fly into the lamp housing, and for gas containing mercury to escape from the projector's vent holes.

Please carefully read the section "Lamp".

Be careful in handling the power cord and external connection cables.

If you keep using a damaged the power cord or cables, it can cause a fire or electrical shock. Do not apply too much heat, pressure or tension to the power cord and cables.

If the power cord or cables is damaged (exposed or broken core wires, etc.), contact your dealer.

• Do not place the projector or heavy objects on the power cord and cables. Also, do not place a spread, cover, etc, over them because this could result in the inadvertent placing of heavy objects on the concealed power cord or cables.

• Do not pull the power cord and cables. When connecting and disconnecting the power cord or cables, do it with your hand holding the plug or connector.

• Do not place the cord near the heater.

• Avoid bending the power cord sharply.

• Do not attempt to work on the power cord.

Be careful in handling the battery of the remote control.

Incorrect handling of the battery could result in fire or personal injury. The battery may explode if not handled properly.

• Keep the battery away from children and pets. If swallowed consult a physician immediately for emergency treatment.

• Do not allow the battery in a fire or water.

• Avoid fire or high-temperature environment.

• Do not hold the battery with the metallic tweezers.

• Keep the battery in a dark, cool and dry play.

• Do not short circuit the battery.

• Do not recharge, disassemble or solder the battery.

• Do not give the battery a physical impact.

• Use only the battery specified in the other manual of this projector.

• Make sure the plus and minus terminals are correctly aligned when loading the battery.

• If you observe a leakage of the battery, wipe out the flower and then replace the battery. If the flower adheres your body or clothes, rinse well with water.

• Obey the local laws on disposing the battery.

Safety Precautions (continued)

⚠ CAUTION

Be careful in moving the projector.
Neglect could result in an injury or damage.
• Do not move the projector during use. Before moving, disconnect the power cord and all external connections, and close the slide lens door or attach the lens cap.
• Avoid any impact or shock to the projector.
• Do not drag the projector.
• For moving the projector, use the enclosed case or bag if provided.

Do not put anything on top of the projector.
Placing anything on the projector could result in loss of balance or falling, and cause an injury or damage. Use special caution in households where children are present.

Do not attach anything other than specified things to the projector.
Neglect could result in an injury or damage.
• Some projector has a screw thread in a lens part. Do not attach anything other than specified options (such as conversion lens) to the screw thread.

Avoid a smoky, humid or dusty place.
Placing the projector in a smoke, a highly humid, dusty place, oily soot or corrosive gas could result in fire or electrical shock.
• Do not place the projector near a smoky, humid or dusty place (ex. a smoking space, a kitchen, a beach, etc.). Do not place the projector outdoors.
• Do not use a humidifier near the projector.

Take care of the air filter to normal ventilate.
The air filter should be cleaned periodically. If the air filter becomes clogged by dust or the like, internal temperature rises and could cause malfunction. The projector may display the message such as “CHECK THE AIR FLOW” or turn off the projector, to prevent the internal heat level rising.
• When the indicators or a message prompts you to clean the air filter, clean the air filter as soon as possible.
• If the soiling will not come off the air filter, or it becomes damaged, replace the air filter.
• Use the air filter of the specified type only. Please order the air filter specified in the other manual of this projector to your dealer.
• When you replace the lamp, replace also the air filter. The air filter may be attached when you buy a replacement lamp for this projector.
• Do not turn on the projector without air filter.

Avoid a high temperature environment.
The heat could have adverse influence on the cabinet of the projector and other parts. Do not place the projector, the remote control and other parts in direct sunlight or near a hot object such as heater, etc.

Avoid Magnetism.
Manufacture strongly recommends to avoid any magnetic contact that is not shielded or protected on or near the projector itself. (ie.,. Magnetic Security Devices, or other projector accessory that contains magnetic material that has not been provided by the manufacture etc.) Magnetic objects may cause interruption of the projector's internal mechanical performance which may interfere with cooling fans speed or stopping, and may cause the projector to completely shut down.

Safety Precautions (continued)

⚠ CAUTION

Remove the power cord for complete separation.

Disconnect the plug from the power outlet.

• For safety purposes, disconnect the power cord if the projector is not to be used for prolonged periods of time.
• Before cleaning, turn off and unplug the projector. Neglect could result in fire or electrical shock.

Ask your dealer to cleaning inside of the projector about every year.

Accumulations of dust inside the projector cause result in fire or malfunction. Cleaning inside is more effective if performed before every humid periods such as rainy season.
• Do not clean inside yourself because it is dangerous.

NOTE

Do not give the remote control any physical impact.

A physical impact could cause damage or malfunction of the remote control.
• Take care not to drop the remote control.
• Do not place the projector or heavy objects on the remote control.

Take care of the lens.

• Close the slide lens door or attach the lens cap to prevent the lens surface being scratched when the projector is not used.
• Do not touch the lens to prevent fog or dirt of the lens that cause deterioration of display quality.
• Use commercially available lens tissue to clean the lens (used to clean cameras, eyeglasses, etc.). Be careful not to scratch the lens with hard objects.

Take care of the cabinet and the remote control.

Incorrect care could have adverse influence such as discoloration, peeling paint, etc.
• Use a soft cloth to clean the cabinet and control panel of the projector and the remote control. When excessively soiled dilute a neutral detergent in water, wet and wring out the soft cloth and afterward wipe with a dry soft cloth. Do not use undiluted detergent directly.
• Do not use an aerosol sprays, solvents, volatile substances or abrasive cleaner.
• Before using chemical wipes, be sure to read and observe the instructions.
• Do not allow long-term close contact with rubber or vinyl.

About bright spots or dark spots.

Although bright spots or dark spots may appear on the screen, this is a unique characteristic of liquid crystal displays, and such do not constitute or imply a machine defect.

Be careful of printing of the LCD panel.

If the projector continues projecting a still image, inactive images or 16:9 aspect images in case of 4:3 panel, etc., for long time, the LCD panel might possibly be printed.

Safety Precautions (continued)

NOTE

About consumables.
Lamp, LCD panels, polarizors and other optical components, and air filter and cooling fans have a different lifetime in each. These parts may need to be replaced after a long usage time.
• This product isn't designed for continuous use of long time. In the case of continuous use for 6 hours or more, or use for 6 hours or more every day (even if it isn't continuous), or repetitious use, the lifetime may be shortened, and these parts may need to be replaced even if one year has not passed since the beginning of using.
• Any inclining use beyond the adjustment range explained in these user's manuals may shorten the lifetimes of the consumables.

Before turning on the power, make the projector cool down adequately.
After turning the projector off, pushing the restart switch or interrupting of the power supply, make the projector cool down adequately. Operation in a high temperature state of the projector causes a damage of the electrode and un-lighting of the lamp.

Avoid strong rays.
Any strong ray (such as direct rays of the sun or room lighting) onto the remote control sensors could invalidate the remote control.

Avoid radio interference.
Any interfering radiation could cause disordered image or noises.
• Avoid radio generator such as a mobile telephone, transceiver, etc. around the projector.

About displaying characteristic.
The display condition of the projector (such as color, contrast, etc.) depends on characteristic of the screen, because the projector uses a liquid crystal display panel. The display condition can differ from the display of CRT.
• Do not use a polarized screen. It can cause red image.

Turn the power on/off in right order.
To prevent any trouble, turn on/off the projector in right order mentioned below unless specifying.
• Power on the projector before the computer or video tape recorder.
• Power off the projector after the computer or video tape recorder.

Take care not to fatigue your eyes.
Rest the eyes periodically.

Set the sound volume at a suitable level to avoid bothering other people.
• It is better to keep the volume level low and close the windows at night to protect the neighborhood environment.

Connecting with notebook computer
When connecting with notebook computer, set to valid the RGB external image output (setting CRT display or simultaneous display of LCD and CRT).
Please read instruction manual of the notebook for more information.

Lamp

⚠ WARNING

HIGH VOLTAGE

HIGH TEMPERATURE

HIGH PRESSURE

The projector uses a high-pressure mercury glass lamp. The lamp can **break with a loud bang, or burn out,** if jolted or scratched, handled while hot, or worn over time. Note that each lamp has a different lifetime, and some may burst or burn out soon after you start using them. In addition, when the bulb bursts, it is possible for **shards of glass** to fly into the lamp housing, and for **gas containing mercury** to escape from the projector's vent holes.

About disposal of a lamp • This product contains a mercury lamp; do not put in trash. Dispose of in accord with environmental laws.
For lamp recycling, go to www.lamprecycle.org. (in USA)
For product disposal, contact your local government agency or www.eiae.org (in the US) or www.epsc.ca (in Canada).
For more information, call your dealer.

Disconnect the plug from the power outlet

• If the lamp should break (it will make a loud bang when it does), unplug the power cord from the outlet, and make sure to request a replacement lamp from your local dealer. Note that shards of glass could damage the projector's internals, or cause injury during handling, so please do not try to clean the projector or replace the lamp yourself.
• If the lamp should break (it will make a loud bang when it does), ventilate the room well, and make sure not to breathe the gas that comes out of the projector vents, or get it in your eyes or mouth.
• Before replacing the lamp, make sure the power switch is off and the power cable is not plugged in, then wait at least 45 minutes for the lamp to cool sufficiently. Handling the lamp while hot can cause burns, as well as damaging the lamp.

• Do not open the lamp cover while the projector is suspended from above. This is dangerous, since if the lamp's bulb has broken, the shards will fall out when the cover is opened. In addition, working in high places is dangerous, so ask your local dealer to have the lamp replaced even if the bulb is not broken.
• Do not use the projector with the lamp cover removed. At the lamp replacing, make sure that the screws are screwed in firmly. Loose screws could result in damage or injury.

• Use the lamp of the specified type only.
• If the lamp breaks soon after the first time it is used, it is possible that there are electrical problems elsewhere besides the lamp. If this happens, contact your local dealer or a service representative.
• Handle with care: jolting or scratching could cause the lamp bulb to burst during use.
• Using the lamp for long periods of time, could cause it dark, not to light up or to burst. When the pictures appear dark, or when the color tone is poor, please replace the lamp as soon as possible. Do not use old (used) lamps; this is a cause of breakage.

Regulatory Notices

FCC Statement Warning

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

WARNING: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

INSTRUCTIONS TO USERS: This equipment complies with the requirements of FCC (Federal Communication Commission) equipment provided that the following conditions are met. Some cables have to be used with the core set. Use the accessory cable or a designated-type cable for the connection. For cables that have a core only at one end, connect the core to the projector.

CAUTION: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

For the Customers in CANADA

NOTICE: This Class B digital apparatus complies with Canadian ICES-003.

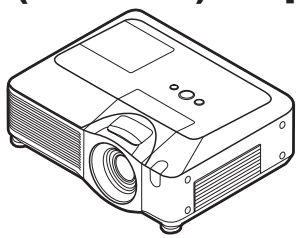
Warranty And After-Service

Unless seen any abnormal operations (mentioned with the first paragraph of WARNING in this manual), when a problem occurs with the equipment, first refer to the "Troubleshooting" section of the "Operating Guide", and run through the suggested checks. If this does not resolve the problem contact your dealer or service company. They will tell you what warranty condition is applied.

Projector

CP-X809W

User's Manual (detailed) – Operating Guide



Thank you for purchasing this projector.

⚠**WARNING** ►Before using this product, please read the "User's Manual - Safety Guide" and related manuals to ensure the proper use of this product. After reading them, store them in a safe place for future reference.

About this manual

Various symbols are used in this manual. The meanings of these symbols are described below.

⚠**WARNING** This symbol indicates information that, if ignored, could possibly result in personal injury or even death due to incorrect handling.

⚠**CAUTION** This symbol indicates information that, if ignored, could possibly result in personal injury or physical damage due to incorrect handling.

🕮 Please refer to the pages written following this symbol.

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Projector features

This projector has a capability to project various picture signals onto a screen. This projector requires only a minimal amount of space for installation and can produce a large projected image from even a short distance. Moreover, the projector has the following features to extend its potentiality for broad use.

- ✓ The HDMI port can support various image equipment which have digital interface to get clearer pictures on a screen.

Preparations

Contents of package

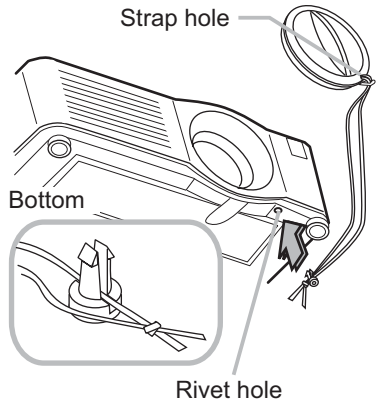
Please see the “Contents of package” in the “User’s Manual (concise)” which is a book. Your projector should come with the items shown there. Contact immediately your dealer if anything is missing.

NOTE • Keep the original packing materials for future reshipment. Be sure to use the original packing materials when moving the projector. Use special caution for the lens.

Fastening the lens cover

To avoid losing the lens cover, please fasten the lens cover to the projector using the included strap.

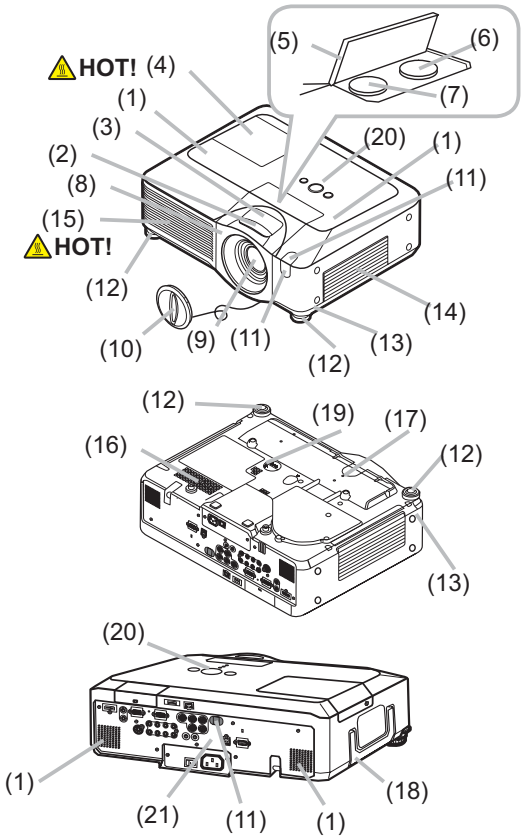
1. Fix the strap to the strap hole of the lens cover.
2. Put one side of the strap into the groove on the rivet.
3. Push the rivet into the rivet hole.



Part names

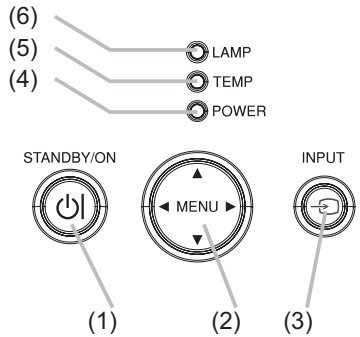
Projector

(1) Speakers (x 4) (📖38)
(2) Focus ring (📖20)
(3) Zoom ring (📖20)
(4) Lamp cover (📖65)
The lamp unit is inside.
(5) Lens shift cover (📖20)
(6) Horizontal lens shift dial (📖20)
(7) Vertical lens shift dial (📖20)
(8) Front cover
(9) Lens (📖69)
(10) Lens cover (📖3)
(11) Remote sensors (x 3) (📖15)
(12) Elevator feet (x 2) (📖9)
(13) Elevator knobs (x 2) (📖9)
(14) Filter cover (📖67)
The air filter and intake vent are inside.
(15) Exhaust vents
(16) Intake vents
(17) Rivet hole (📖3)
(18) Handle
(19) Battery cover (📖68)
(20) Control panel (📖5)
(21) Rear panel (📖5)



⚠**WARNING** ►**HOT!** : Do not touch around the lamp cover and the exhaust vents during use or just after use, since it is too hot.
►Do not look into the lens or vents while the lamp is on, since the strong light is not good for your eyes.
►Do not grab the front cover to hold the projector up, since the projector may drop down.
►Do not handle the elevator knobs without holding the projector, since the projector may drop down.
⚠**CAUTION** ►Maintain normal ventilation to prevent the projector from heating up. Do not cover, block or plug up the vents. Do not place anything that can stick or be sucked to the vents, around the intake vents. Clean the air filter periodically.

Control panel

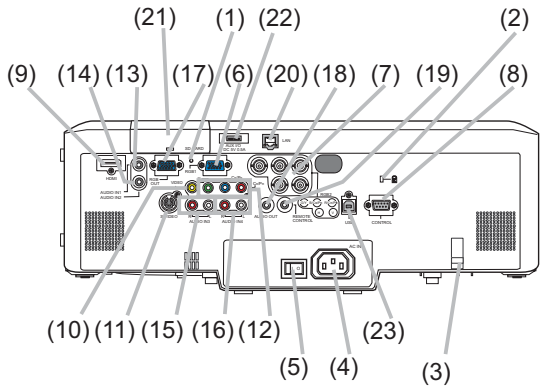


(1) STANDBY/ON button (📖*17*)
(2) MENU button (📖*24*)
It consists of four cursor buttons.
(3) INPUT button (📖*18*)
(4) POWER indicator (📖*17, 71*)
(5) TEMP indicator (📖*71*)
(6) LAMP indicator (📖*71*)

Rear panel

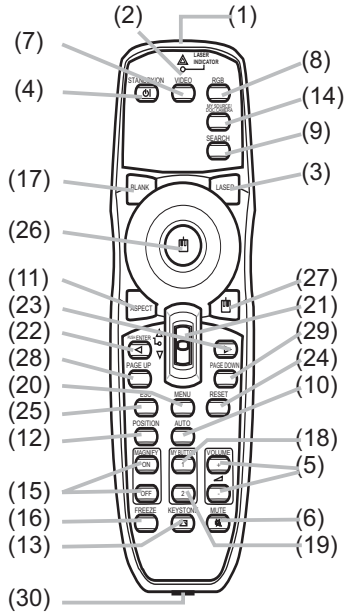
(1) Shutdown switch (📖*73*)
(2) Security slot (📖*9*)
(3) Security bar (📖*9*)
(4) AC IN (AC inlet) (📖*13*)
(5) Power switch (📖*17*)

(6) RGB1 port (📖*10*)
(7) RGB2(G/Y, B/C_B/P_B, R/C_R/P_R, H, V) port (📖*10*)
(8) CONTROL port (📖*10*)
(9) HDMI port (📖*10*)
(10) VIDEO port (📖*10*)
(11) S-VIDEO port (📖*10*)
(12) COMPONENT (Y, C_B/P_B, C_R/P_R) ports (📖*10*)
(13) AUDIO IN1 port (📖*10*)
(14) AUDIO IN2 port (📖*10*)
(15) AUDIO IN3 (R/L) ports (📖*10*)
(16) AUDIO IN4 (R/L) ports (📖*10*)
(17) RGB OUT port (📖*10*)
(18) AUDIO OUT port (📖*10*)
(19) REMOTE CONTROL port (📖*10*)
(20) LAN port (📖*10*)
(21) SD card slot cover (📖*12*)
The SD card slot is inside.
(22) AUX I/O port (📖*12*)
(23) USB port (📖*10*)

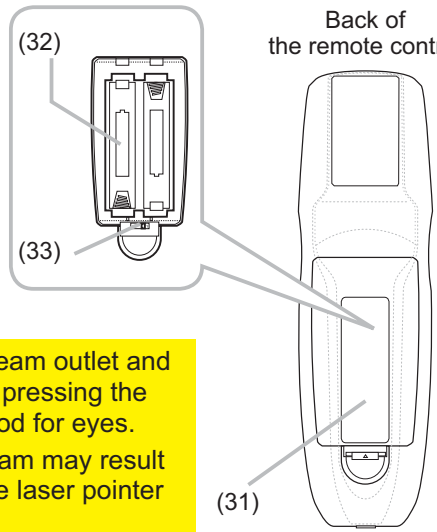


⚠CAUTION ►Do not use the security bar and the security slot to prevent the projector from falling down, since it is not designed for it.
►Use the shutdown switch only when the projector is not turned off by normal procedure, since pushing this switch stops operation of the projector without cooling it down.

Remote control



(1) Laser pointer (📖*14*)
It is a beam outlet.
(2) LASER INDICATOR (📖*14*)
(3) LASER button (📖*14*)
(4) STANDBY/ON button (📖*17*)
(5) VOLUME+/- buttons (📖*18*)
(6) MUTE button (📖*18*)
(7) VIDEO button (📖*19*)
(8) RGB button (📖*18*)
(9) SEARCH button (📖*19*)
(10) AUTO button (📖*20*)
(11) ASPECT button (📖*19*)
(12) POSITION button (📖*21*)
(13) KEYSTONE button (📖*21*)
(14) MY SOURCE/DOC.CAMERA button (📖*19*)
(15) MAGNIFY - ON/- OFF buttons (📖*22*)
(16) FREEZE button (📖*22*)
(17) BLANK button (📖*23*)
(18) MY BUTTON - 1 button (📖*46*)
(19) MY BUTTON - 2 button (📖*46*)
(20) MENU button (📖*24*)
(21) Lever switch (📖*24*) : acting 3 functions as below.
Cursor button ▲ : to slide toward the side marked ▲.
Cursor button ▼ : to slide toward the side marked ▼.
ENTER button : to push down the center point.
(22) Cursor button ◄ (📖*24*)
(23) Cursor button ► (📖*24*)
(24) RESET button (📖*24*)
(25) ESC button (📖*24*)
(26) Mouse left button (📖*16*)
(27) Mouse right button (📖*16*)
(28) PAGE UP button (📖*16*)
(29) PAGE DOWN button (📖*16*)
(30) Wired remote control port (📖*16*)
(31) Battery cover (📖*14*)
(32) Battery holder (📖*14*)
(33) Frequency switch (📖*15*)



⚠**WARNING** ►Do not look into the beam outlet and point the beam at people and pets while pressing the LASER button, since the beam is not good for eyes.

⚠**CAUTION** ►Note that the laser beam may result in hazardous radiation exposure. Use the laser pointer only for pointing on the screen.

Setting up

Install the projector according to the environment and manner the projector will be used in.

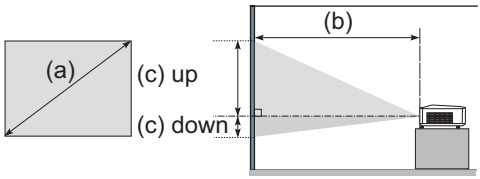
⚠**WARNING** ►Place the projector in a stable horizontal position. If the projector falls or is knocked over, it could cause injury and/or damage to the projector. Using a damaged projector could then result in fire and/or electric shock.
• Do not place the projector on an unstable, slanted or vibrational surface such as a wobbly or inclined stand.
• Do not place the projector on its side, front or rear position.
• Consult with your dealer before a special installation such as suspending from a ceiling.
►Place the projector in a cool place, and ensure that there is sufficient ventilation. The high temperature of the projector could cause fire, burns and/or malfunction of the projector.
• Do not stop-up, block or otherwise cover the projector's vents.
• Keep a space of 30 cm or more between the sides of the projector and other objects such as walls.
• Do not place the projector on metallic thing or anything weak in heat.
• Do not place the projector on carpet, cushions or bedding.
• Do not place the projector in direct sunlight or near hot objects such as heaters.
• Do not place anything near the projector lens or vents, or on top of the projector.
• Do not place anything that may be sucked into or stick to the vents on the bottom of the projector. This projector has some intake vents also on the bottom.
►Do not place the projector anyplace where it may get wet. Getting the projector wet or inserting liquid into the projector could cause fire, electric shock and/or malfunction of the projector.
• Do not place the projector in a bathroom or the outdoors.
• Do not place anything containing liquid near the projector.

⚠**CAUTION** ►Avoid placing the projector in smoky, humid or dusty place. Placing the projector in such places could cause fire, electric shock and/or malfunction of the projector.
• Do not place the projector near humidifiers, smoking spaces or a kitchen.
►Position the projector to prevent light from directly hitting the projector's remote sensor.

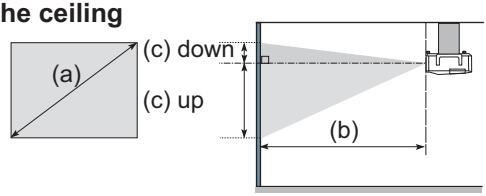
Arrangement

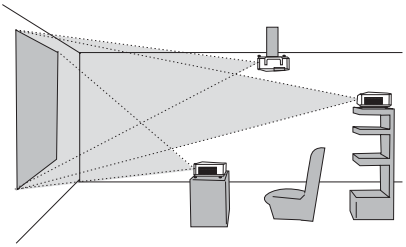
Refer to the illustrations and tables below to determine screen size and projection distance.
The values shown in the table are calculated for a full size screen: 1024×768
(a) Screen size (diagonal)
(b) Projection distance (±10%)
(c) Screen height (±10%), when the vertical lens shift (20) is set full upward.

On a horizontal surface



Suspended from the ceiling



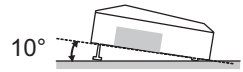


• Keep a space of 30 cm or more between the sides of the projector and other objects such as walls.
• Consult with your dealer before a special installation such as suspending from a ceiling.

(a) Screen size [inch (m)]	4 : 3 screen				16 : 9 screen			
	(b) Projection distance [m (inch)]		(c) Screen height [cm (inch)]		(b) Projection distance [m (inch)]		(c) Screen height [cm (inch)]	
	min.	max.	down	up	min.	max.	down	up
30 (0.8)	0.9 (35)	1.1 (42)	5 (2)	41 (16)	1.0 (38)	1.2 (46)	-1 (0)	39 (15)
40 (1.0)	1.2 (47)	1.4 (57)	6 (2)	55 (22)	1.3 (51)	1.6 (62)	-2 (-1)	51 (20)
60 (1.5)	1.8 (71)	2.2 (86)	9 (4)	82 (32)	2.0 (78)	2.4 (94)	-2 (-1)	77 (30)
70 (1.8)	2.1 (83)	2.6 (100)	11 (4)	96 (38)	2.3 (91)	2.8 (110)	-3 (-1)	90 (35)
80 (2.0)	2.4 (96)	2.9 (115)	12 (5)	110 (43)	2.6 (104)	3.2 (126)	-3 (-1)	103 (41)
90 (2.3)	2.7 (108)	3.3 (130)	14 (5)	123 (49)	3.0 (117)	3.6 (141)	-4 (-1)	116 (46)
100 (2.5)	3.0 (120)	3.7 (144)	15 (6)	137 (54)	3.3 (131)	4.0 (157)	-4 (-2)	129 (51)
120 (3.0)	3.7 (144)	4.4 (174)	18 (7)	165 (65)	4.0 (157)	4.8 (189)	-5 (-2)	154 (61)
150 (3.8)	4.6 (181)	5.5 (217)	23 (9)	206 (81)	5.0 (197)	6.0 (237)	-6 (-2)	193 (76)
200 (5.1)	6.1 (241)	7.4 (291)	30 (12)	274 (108)	6.7 (263)	8.0 (317)	-8 (-3)	257 (101)
250 (6.4)	7.7 (302)	9.2 (364)	38 (15)	343 (135)	8.4 (329)	10.1 (396)	-10 (-4)	322 (127)
300 (7.6)	9.2 (363)	11.1 (437)	46 (18)	411 (162)	10.0 (395)	12.1 (476)	-12 (-5)	386 (152)
350 (8.9)	10.8 (424)	13.0 (510)	53 (21)	480 (189)	11.7 (462)	14.1 (556)	-15 (-6)	450 (177)

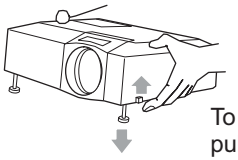
Adjusting the projector's elevator

When the place to put the projector is slightly uneven to the left or right, use the elevator feet to place the projector horizontally.
Using the feet can also tilt the projector in order to project at a suitable angle to the screen, elevating the front side of the projector within 10 degrees.

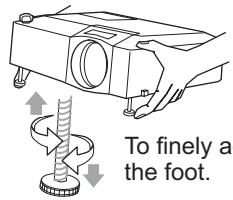


This projector has 2 elevator feet and 2 elevator knobs. An elevator foot is adjustable while pulling up the elevator knob on the same side as it.

1. Holding the projector, pull the elevator knobs up to loose the elevator feet.
2. Position the front side of the projector to the desired height.
3. Release the elevator knobs in order to lock the elevator feet.
4. After making sure that the elevator feet are locked, put the projector down gently.
5. If necessary, the elevator feet can be manually twisted to make more precise adjustments. Hold the projector when twisting the feet.



To loose an elevator foot, pull up the elevator knob on the same side as it.

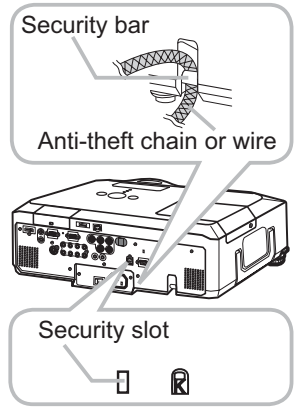


To finely adjust, twist the foot.

⚠**CAUTION** ►Do not handle the elevator knobs without holding the projector, since the projector may drop down.
►Do not tilt the projector other than elevating its front within 10 degrees using the adjuster feet. A tilt of the projector exceeding the restriction could cause malfunction or shortening the lifetime of consumables, or the projector itself.

Using the security bar and slot

A commercial anti-theft chain or wire up to 10 mm in diameter can be attached to the security bar on the projector.
Also this product has the security slot for the Kensington lock.
For details, see the manual of the security tool.

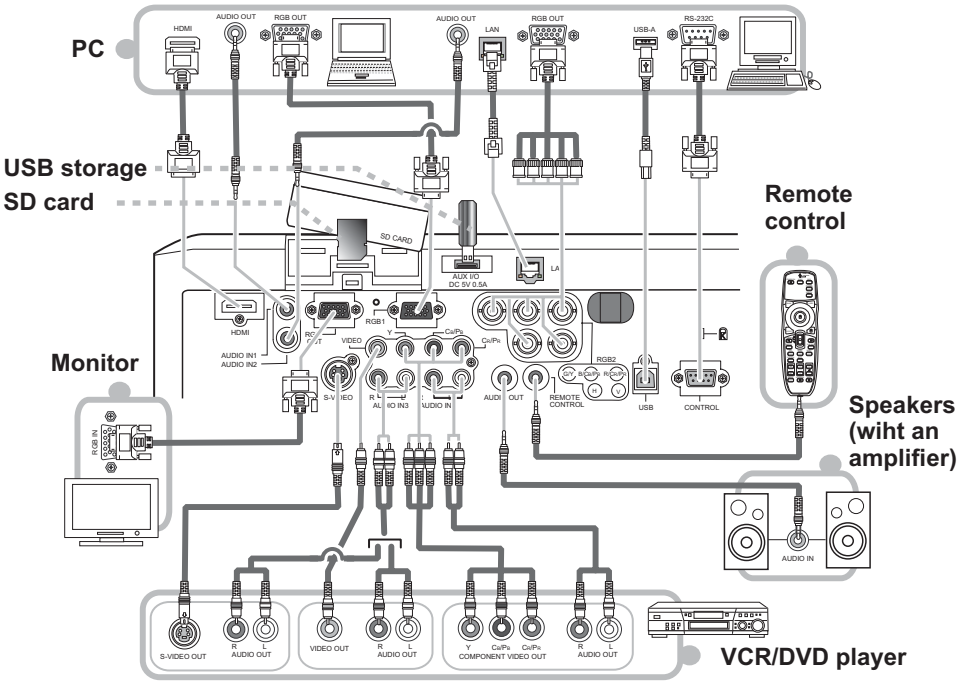


⚠**WARNING** ►Do not use the security bar and the security slot to prevent the projector from falling down, since it is not designed for it.

NOTE • The security bar and the security slot are not comprehensive theft prevention measures. They are intended to be used as supplemental theft prevention measure.

Connecting your devices

Be sure to read the manuals for devices before connecting them to the projector. Make sure that all the devices are suitable to be connected with this product, and prepare the cables required to connect.
Please refer to the following illustrations to connect them.



⚠**WARNING** ►Do not disassemble or modify the projector.
►Be careful not to damage the cables, and do not use damaged cables.

⚠**CAUTION** ►Turn off all devices and unplug their power cords prior to connecting them to projector. Connecting a live device to the projector may generate extremely loud noises or other abnormalities that may result in malfunction or damage to the device and the projector.
►Use appropriate accessory or designated cables. Ask your dealer about non-accessory cables which may be required a specific length or a ferrite core by the regulations. For cables with a core only at one end, connect the end with the core to the projector.
►Make sure that devices are connected to the correct ports. An incorrect connection may result in malfunction or damage to the device and the projector.

Connecting your devices (continued)

NOTE • Be sure to read the manuals for devices before connecting them to the projector, and make sure that all the devices are suitable to be connected with this product. Before connecting to a PC, check the signal level, the signal timing, and the resolution.
- Be sure to consult to the administrator of the network. Do not connect LAN port to any network that might have the excessive voltage.
- Some signal may need an adapter to input this projector.
- Some PCs have multiple screen display modes that may include some signals which are not supported by this projector.
- Although the projector can display signals with resolution up to UXGA (1600X1200), the signal will be converted to the projector's panel resolution before being displayed. The best display performance will be achieved if the resolutions of the input signal and the projector panel are identical.

• While connecting, make sure that the shape of the cable's connector fits the port to connect with. And be sure to tighten the screws on connectors with screws.
• When connecting a laptop PC to the projector, be sure to activate the PC's external RGB output. (Set the laptop PC to CRT display or to simultaneous LCD and CRT display.) For details on how this is done, please refer to the instruction manual of the corresponding laptop PC.
• When the picture resolution is changed on a computer depending on an input, automatic adjustment function may take some time and may not be completed. In this case, you may not be able to see a check box to select "Yes/No" for the new resolution on Windows. Then the resolution will go back to the original. It might be recommended to use other CRT or LCD monitors to change the resolution.
• In some cases, this projector may not display a proper picture or display any picture on screen. For example, automatic adjustment may not function correctly with some input signals. An input signal of composite sync or sync on G may confuse this projector, so the projector may not display a proper picture.
• The HDMI port of this model is compatible with HDCP (High-bandwidth Digital Content Protection) and therefore capable of displaying a video signal from HDCP compatible DVD players or the like.

About Plug-and-Play capability

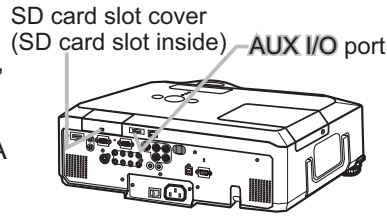
Plug-and-Play is a system composed of a computer, its operating system and peripheral equipment (i.e. display devices). This projector is VESA DDC 2B compatible. Plug-and-Play can be used by connecting this projector to a computer that is VESA DDC (display data channel) compatible.
• Take advantage of this feature by connecting an RGB cable to the RGB1 port (DDC 2B compatible). Plug-and-Play may not work properly if any other type of connection is attempted.
• Please use the standard drivers in your computer as this projector is a Plug-and-Play monitor.

NOTE for HDMI

• The HDMI supports the following signals.
-Video signal : 480i@60,480p@60,576i@50,720p@50/60,1080i@50/60,1080p@50/60
-PC signals : See User's Manual (detailed) Technical
-Audio signal : Format Linear PCM
Sampling Frequency 48kHz / 44.1kHz / 32kHz
• This projector can be connected with another equipment that has HDMI or DVI connector, but with some equipment the projector may not work properly, something like no video or no audio.
• Be sure to use an HDMI cable that has the HDMI logo.
• When the projector is connected with a device having DVI connector, use a DVI to HDMI cable to connect with the HDMI input and an audio cable to connect with one of the AUDIO input.

Using a USB storage

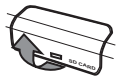
In order to view images stored in a USB storage, such as a USB memory, insert the device into the AUX I/O port. Before removing the USB storage, be sure to perform the REMOVE MEDIA procedure using the PC-LESS PRESENTATION menu under the MIU menu.



Using an SD card

In order to view images stored in an SD storage, such as an SD memory card, insert the device into the SD card slot. Or, in order to use the wireless network function, load the internal clock battery (68) and insert the designated wireless network card that is sold as an option (76) into the slot.

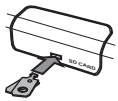
Inserting the SD card



1. Make sure that the power code is not plugged into the projector for the wireless network card only.
2. Remove the SD card slot cover. After slowly insert the SD card completely into the SD card slot, replace the SD card slot cover.

Using the slot cover lock for security

Using the enclosed slot cover lock can prevent the SD card slot cover from being opened.



1. Open the two plates of the slot cover lock to put the tips of two plates together, and then insert the tips to the lock hole of the SD card slot cover.
2. Put the body of the two plates together. Then, hook a padlock or combination lock to the hole of the slot cover lock.

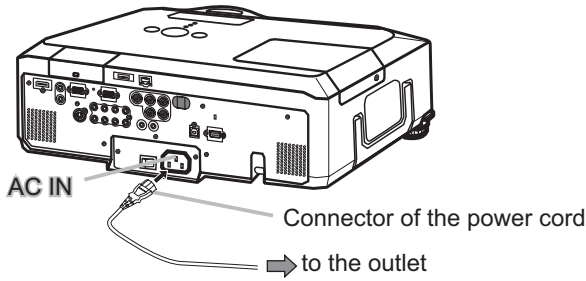
Removing the SD card

1. Perform the REMOVE MEDIA procedure using the PC-LESS PRESENTATION menu under the MIU menu for SD storage card only.
2. Turn the projector off and unplug the power code from the projector for the wireless network card only.
3. Remove the SD card slot cover. After taking the SD card away, replace the SD card slot cover.

⚠**CAUTION** ►Do not touch the SD card while being accessed.
►To use the wireless network function, the designated wireless network card that is sold as an option is required.
• The wireless network card is not permitted to be sold or used in some countries and regions. Use the card only in the country or region where you buy it. For more information, ask your local dealer.
• When using the wireless network card, to comply with FCC RF exposure compliance requirements, the antenna used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.
• Before using the projector with a wired LAN, remove the wireless network card.

Connecting power supply

1. Connect the connector of the power cord to the AC IN (AC inlet) of the projector.
2. Firmly plug the power cord's plug into the outlet.

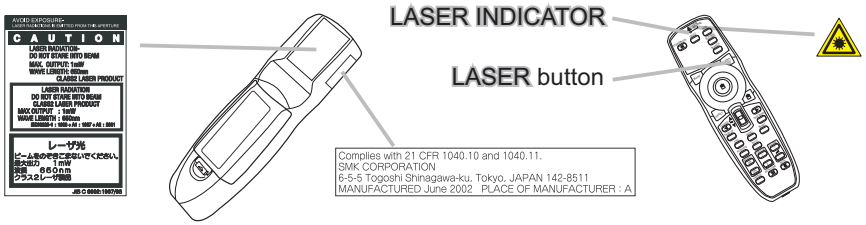


⚠**WARNING** ►Please use extra caution when connecting the power cord, as incorrect or faulty connections may result in fire and/or electrical shock.
• Only use the power cord that came with the projector. If it is damaged, contact your dealer to get a new one.
• Only plug the power cord into an outlet whose voltage is matched to the power cord. The power outlet should be close to the projector and easily accessible. Remove the power cord for complete separation.
• Never modify the power cord.

Remote control

Laser pointer

This remote control has a laser pointer in place of a finger or rod. The laser beam works and the LASER INDICATOR lights while the LASER button is pressed.


LASER INDICATOR
LASER button
CAUTION
Complies with 21 CFR 1040.10 and 1040.11.
SMK CORPORATION
6-5-5 Togoshi Shinagawa-ku, Tokyo, JAPAN 142-8511
MANUFACTURED June 2002 PLACE OF MANUFACTURER : A

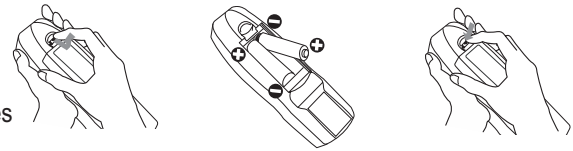
⚠**WARNING** ►The laser pointer of the remote control is used in place of a finger or rod. Never look directly into the laser beam outlet or point the laser beam at other people. The laser beam can cause vision problems.

⚠**CAUTION** ►Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Installing the batteries

Please insert the batteries before using the remote control. If the remote control starts to malfunction, replace the batteries. If you will not use the remote control for an extended period, remove the batteries from the remote control and store them in a safe place.

1. Slide back and remove the battery cover in the direction of the arrow.
2. Align and insert the two AA batteries **(HITACHI MAXELL, Part No.LR6 or R6P)** according to their plus and minus terminals as indicated in the remote control.
3. Replace the battery cover in the direction of the arrow and snap it back into place.



⚠**WARNING** ►Always handle the batteries with care and use them only as directed. Improper use may result in battery explosion, cracking or leakage, which could result in fire, injury and/or pollution of the surrounding environment.

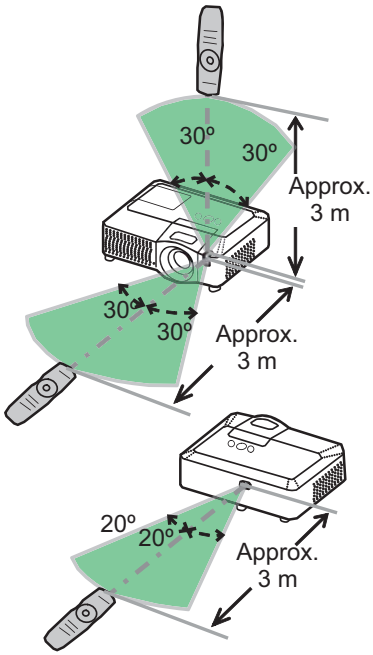
- Be sure to use only the batteries specified. Do not use batteries of different types at the same time. Do not mix a new battery with used one.
- Make sure the plus and minus terminals are correctly aligned when loading a battery.
- Keep a battery away from children and pets.
- Do not recharge, short circuit, solder or disassemble a battery.
- Do not place a battery in a fire or water. Keep batteries in a dark, cool and dry place.
- If you observe battery leakage, wipe out the leakage and then replace a battery. If the leakage adheres to your body or clothes, rinse well with water immediately.
- Obey the local laws on disposing the battery.

About the remote control signal

The remote control works with the projector's remote sensors. This projector has three remote sensors on the front, on the top, and on the back.
The sensors can be respectively turned active or inactive using the "REMOTE RECEIV." in the SERVICE item of OPTION menu (48). Each sensor senses the signal within the following range when the sensor is active.

The front and top sensors:
60 degrees (30 degrees to the left and right of the sensor) within 3 meters about.

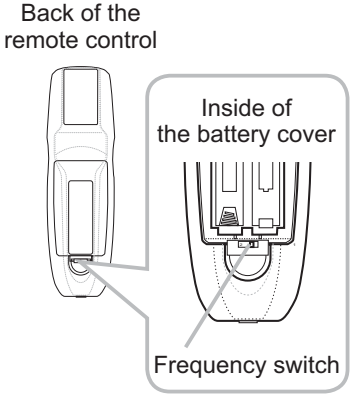
The back sensor:
40 degrees (20 degrees to the left and right of the sensor) within 3 meters about.



NOTE • The remote control signal reflected in the screen or the like may be available. If it is difficult to send the signal to the sensor directly, attempt to make the signal reflect.
• The remote control uses infrared light to send signals to the projector (Class 1 LED), so be sure to use the remote control in an area free from obstacles that could block the remote control's signal to the projector.
• The remote control may not work correctly if strong light (such as direct sun light) or light from an extremely close range (such as from an inverter fluorescent lamp) shines on the remote sensor of the projector. Adjust the position of projector avoiding those lights.

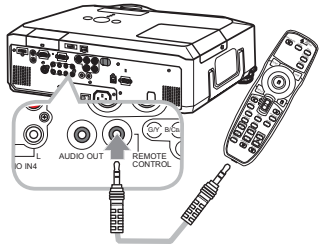
Changing the frequency of remote control signal

The accessory remote control has the choice of the mode 1 or the mode 2, in the frequency of its signal. If the remote control does not function properly, attempt to change the signal frequency. Please remember that the "REMOTE FREQ." in SERVICE item of OPTION menu (48) of the projector to be controlled should be set to the same mode as the remote control.
To set the mode of the remote control, slide the knob of the frequency switch inside the battery cover into the position indicated by the mode number to choose.



Using as a wired remote control

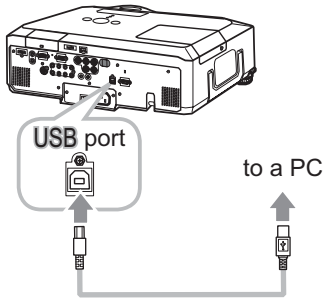
The accessory remote control works as a wired remote control, when the wired control port at the bottom of the remote control connects with the REMOTE CONTROL port on the back of the projector via an audio cable with 3.5 diameter stereo mini plugs. When the remote control signal is hard to reach surely to the projector in the environment, this function is effective.



NOTE • To connect the remote control with the projector, use an audio cable with 3.5 diameter stereo mini plugs.

Using as a simple PC mouse & keyboard

The accessory remote control works as a simple mouse and keyboard of the PC, when the projector's USB port(B type) connect with the PC's USB port(A type) via a USB cable.

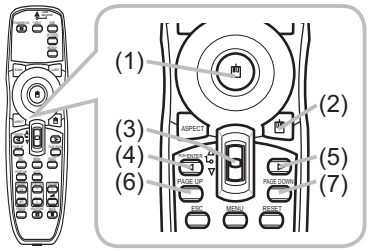


(1) Mouse left button
Pushing the button into the center point works instead of clicking the mouse's left button. Tilting this button to one of eight directions moves the PC's move pointer on the screen in the direction.

(2) Mouse right button
Pressing the button works instead of clicking the mouse's right button.

(3) Lever switch
Sliding toward the side marked ▲ works instead of the [↑] key on the keyboard. Sliding toward the side marked ▼ works instead of the [↓] key on the keyboard.

(4) Cursor button ◄
This button works instead of the [←] key on the keyboard.



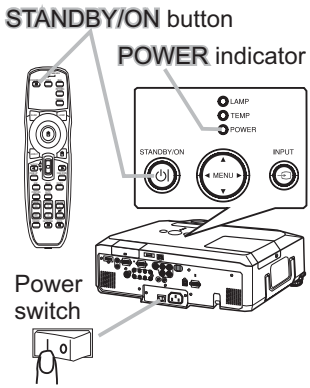
(5) Cursor button ►
This button works instead of the [→] key on the keyboard.

(6) PAGE UP button
This button works instead of the PAGE UP key on the key board.

(7) PAGE DOWN button
This button works instead of the PAGE DOWN key on the key board.

NOTE • When the simple mouse & keyboard function of this product does not work correctly, please check the following.
- When a USB cable connects this projector with a PC having a built-in pointing device (e.g. track ball) like a notebook PC, open BIOS setup menu, then select the external mouse and disable the built-in pointing device, because the built-in pointing device may have priority to this function.
- Windows 95 OSR 2.1 or higher is required for this function. And also this function may not work depending on the PC's configurations and mouse drivers.
- Operating simultaneously two or more keys is void except for mouse drag and drop operation.
- This function is activated only when the projector is working properly.

Power on/off



Turning on the power

1. Make sure that the power cord is firmly and correctly connected to the projector and the outlet.
2. Remove the lens cover, and set the power switch to the ON position (marked " I ").
   The POWER indicator will light up in steady orange (📖71). Then wait several seconds because the buttons may not function for these several seconds.
3. Press the STANDBY/ON button on the projector or the remote control.

The projection lamp will light up and the POWER indicator will begin blinking in green. When the power is completely on, the indicator will stop blinking and light in steady green.
To display the picture, select an input signal according to the section "Selecting an input signal" (📖18,19).

Turning off the power

1. Press the STANDBY/ON button on the projector or the remote control.
   The message "Power off?" will appear on the screen for about 5 seconds.
2. Press the STANDBY/ON button on the projector or the remote control again while the message appears.
   The projector lamp will go off, and the POWER indicator will begin blinking in orange. Then the POWER indicator will stop blinking and light in steady orange when the lamp cooling is complete.
3. Make sure that the POWER indicator lights in steady orange, and set the power switch to the OFF position (marked "O").
   The POWER indicator will go off. Attach the lens cover.

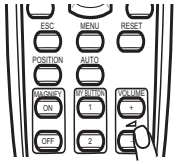
Do not turn the projector on for 10 minutes or more after turning it off. Turning the projector on again too soon could shorten the lifetime of some consumable parts of the projector.

⚠**WARNING** ►A strong light is emitted when the projector's power is on. Do not look into the lens of the projector or look inside of the projector through any of the projector's openings.
►Do not touch around the lamp cover and the exhaust vents during use or just after use, since it is too hot.

NOTE • Turn the power on/off in right order. Please power on the projector prior to the connected devices. Power off the projector later than the connected devices.
• When the AUTO ON of the OPTION menu is set to the TURN ON, and the power was turned off by the power switch last time, turning the power switch on makes the projection lamp light on without pushing the STANDBY/ON button (📖44).
• Use the shutdown switch (📖73) only when the projector is not turned off by normal procedure.

Operating

Adjusting the volume



1. Use the VOLUME + / VOLUME - buttons to adjust the volume.
   A dialog will appear on the screen to aid you in adjusting the volume.If you do not do anything, the dialog will automatically disappear after a few seconds.

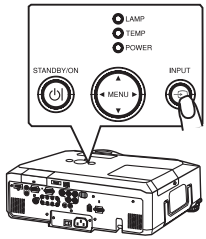
- When 🔇 is selected for current picture input port, the volume adjustment is disabled. Please see AUDIO item of AUDIO menu (📖38).
- When the projector is in the standby mode, the volume can be adjusted if 🔇 is not selected for the AUDIO OUT STANDBY of AUDIO (📖38).

Temporarily muting the sound

1. Press MUTE button on the remote control.
   A dialog will appear on the screen indicating that you have muted the sound.
   To restore the sound, press the MUTE, VOLUME + or VOLUME - button. Even if you do not do anything, the dialog will automatically disappear after a few seconds.

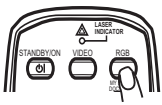
- When 🔇 is selected for current picture input port, the sound is always muted. Please see AUDIO item of AUDIO menu (📖38).
- When the sound is muted while a signal from VIDEO(NTSC), S-VIDEO(NTSC) or COMPONENT(480i@60) port is selected, the C.C. (Closed Caption) is automatically activated if the DISPLAY item of the C.C. menu is set to AUTO and the input signal supports the C.C. feature (📖64).

Selecting an input signal



1. Press the INPUT button on the projector.
   Each time you press the button, the projector switches its input from the current port as below.

   → RGB 1 → RGB 2 → HDMI → MIU →
   ← VIDEO ← S-VIDEO ← COMPONENT (Y, C_B/P_B, C_R/P_R) ←



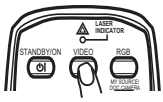
1. Press the RGB button on the remote control to select an input port for the RGB signal.
   Each time you press the button, the projector switches its RGB input from the current port as below.

   → RGB 1 → RGB 2 → HDMI → MIU →

- While TURN ON is selected for AUTO SEARCH item in OPTION menu, the projector will keep checking every port sequentially till aninput signal is detected (📖44). If RGB button is pushed when VIDEO, S-VIDEO or COMPONENT port is selected, the projector will check RGB1 port first.

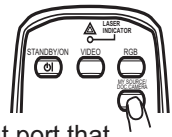
(continued on next page)

Selecting an input signal (continued)



1. Press the VIDEO button on the remote control to select an input for video signal.
   Each time you press the button, the projector switches its video input port as below.
   COMPONENT (Y, C_B/P_B, C_R/P_R) → S-VIDEO → VIDEO

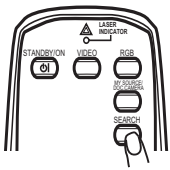
● While TURN ON is selected for AUTO SEARCH item in OPTION menu, the projector will keep checking every port sequentially till an input signal is detected (📖44). If VIDEO button is pushed when RGB 1 or RGB 2 port is selected, the projector will check COMPONENT port first.



1. Press the MY SOURCE / DOC. CAMERA button on the remote control. The input signal will be changed into the signal you set as MY SOURCE(📖46).

● This function also can use for document camera. Select the input port that connected the document camera.

Searching an input signal



1. Press the SEARCH button on the remote control.
   The projector will start to check its input ports in order to find any input signals.
   When an input is found, the projector will stop searching and display the image. If no signal is found, the projector will return to the state selected before the operation.

→ RGB 1 → RGB 2 → HDMI → MIU
VIDEO ← S-VIDEO ← COMPONENT (Y, C_B/P_B, C_R/P_R) ←

Selecting an aspect ratio

1. Press the ASPECT button on the remote control.
   Each time you press the button, the projector switches the mode for aspect ratio in turn.

❍ **For an RGB or MIU signal**
NORMAL → 4:3 → 16:9 → SMALL

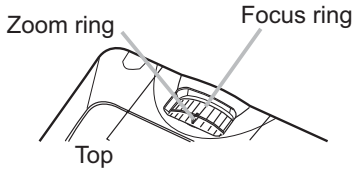
❍ **For an HDMI signal**
NORMAL → 4:3 → 16:9 → 14:9 → SMALL

❍ **For a video signal, s-video signal or component video signal**
4:3 → 16:9 → 14:9 → SMALL

❍ **For no signal**
4:3 (fixed)

● The NORMAL mode keeps the original aspect ratio of the signal.

Adjusting the zoom and focus

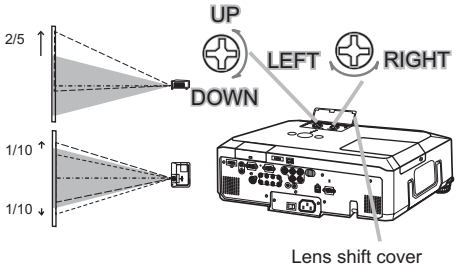


1. Use the zoom ring to adjust the screen size.
2. Use the focus ring to focus the picture.

Adjusting the lens shift

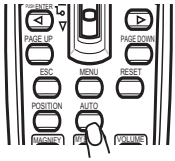
1. Use the vertical lens shift dial to shift the picture upward or downward.
2. Use the horizontal lens shift dial to shift the picture left or right.

NOTE • When the vertical lens shift is adjusted, it is recommended to shift the picture upward.



Using the automatic adjustment feature

1. Press the AUTO button on the remote control.
   Pressing this button performs the following.



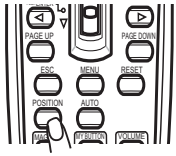
❍ **For an RGB or MIU signal**
The vertical position, the horizontal position and the horizontal phase will be automatically adjusted. Make sure that the application window is set to its maximum size prior to attempting to use this feature. A dark picture may still be incorrectly adjusted. Use a bright picture when adjusting.

❍ **For a video signal and s-video signal**
The video format best suited for the respective input signal will be selected automatically. This function is available only when the AUTO is selected for the VIDEO FORMAT item in the INPUT menu (🕮33). The vertical position and horizontal position will be automatically set to the default.

❍ **For a component video signal**
The vertical position, horizontal position and horizontal phase will be automatically set to the default.

- The automatic adjustment operation requires approx. 10 seconds. Also please note that it may not function correctly with some input. When this function is performed for a video signal, a certain extra such as a line may appear outside a picture.
- The items adjusted by this function may vary when the FINE or DISABLE is selected for the AUTO ADJUST item of the SERVICE item in the OPTION menu (🕮47).

Adjusting the position

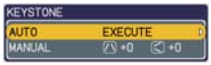


1. Press the POSITION button on the remote control when no menu is indicated.
   The “POSITION” indication will appear on the screen.
2. Use the ▲/▼/◄/► cursor buttons to adjust the picture position.
   When you want to reset the operation, press the RESET button on the remote control during the operation.
   To complete this operation, press the POSITION button again. Even if you do not do anything, the dialog will automatically disappear after a few seconds.

- When this function is performed on a video signal, s-video signal or component video signal, some image such as an extra-line may appear at outside of the picture.
- When this function is performing on a Video signal, S-Video signal, or component signal of 480i@60 or 576i@50 input the range of this adjustment depends on the OVER SCAN in IMAGE menu (📖30). It is not possible to adjust when the OVER SCAN is set to 10.

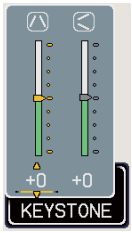
Correcting the keystone distortions

1. Press the KEYSTONE button on the remote control. A dialog will appear on the screen to aid you in correcting the distortion.



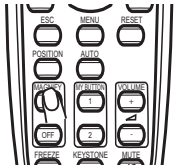
2. Use the ▲/▼ cursor buttons to select AUTO or MANUAL operation, and press the ► button to perform the following.
   1) AUTO executes automatic vertical keystone correction.
   2) MANUAL displays a dialog for keystone correction.
      Use the ◄/► cursor buttons to select the direction to correct (⏢ or ⏣) then use the ▲/▼ buttons for adjustment.

   To close the dialog and complete this operation, press the KEYSTONE button again. Even if you don’t do anything, the dialog will automatically disappear after a few seconds.



- The adjustable range of this function will vary among inputs. For some input, this function may not work well.
- When V:INVERT or H&V:INVERT is selected to the MIRROR item in the SETUP menu, if the projector screen is inclined or angled downward, this function may not work correctly.
- When the zoom adjustment is set to the TELE (telephoto focus), this function may be excessive. This function should be used when the zoom adjustment is set to the full WIDE (wide-angle focus) whenever possible.
- When the projector is placed on the level (about ±3°), this function may not work.
- When the projector is inclined to near ±30 degree or over, this function may not work well.
- When the vertical lens shift is not set fully upward (not set fully downward for the optional lens type FL-601 only (📖47)), this function may not work well.
- When the horizontal lens shift is not set to the center, this function may not work well.
- This function will be unavailable when Transition Detector is on (📖52).

Using the magnify feature



1. Press the ON button of MAGNIFY on the remote control. The “MAGNIFY” indication will appear on the screen and the projector will go into the MAGNIFY mode. In the Magnify mode, the picture will be zoomed. The indication will disappear in several seconds with no operation.

2. Use the ▲/▼ cursor buttons to adjust the zoom level.To move the zoom area, press the POSITION button in the MAGNIFY mode, then use the ▲/▼/◄/► cursor buttons to move the area. And to finalize the zoom area, press the POSITION button again.
   To exit from the MAGNIFY mode and restore the screen to normal, press the OFF button of MAGNIFY on the remote control.

- The projector automatically exits from the MAGNIFY mode when the input signal is changed or when the display condition is changed.
- In the MAGNIFY mode, the keystone distortion condition may vary, it will be restored when the projector exits from the MAGNIFY mode.

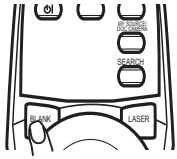
NOTE • The zoom level can be finely adjusted. Closely watch the screen to find the level you want.

Freezing the screen

1. Press the FREEZE button on the remote control. The “FREEZE” indication will appear on the screen (however, the indication will not appear when the TURN OFF is selected for the MESSAGE item in the SCREEN menu (📖42)), and the projector will go into the FREEZE mode, which the picture is frozen.
   To exit the FREEZE mode and restore the screen to normal, press the FREEZE button again.

- The projector automatically exits from the FREEZE mode when some control buttons are pressed.
- If the projector continues projecting a still image for a long time, the LCD panel might possibly be burned in. Do not leave the projector in the FREEZE mode for too long.

Temporarily blanking the screen



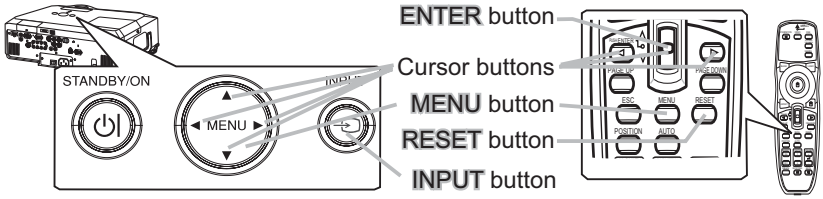
1. Press the BLANK button on the remote control.
   The blank screen will be displayed instead of the screen of input signal. Please refer to the BLANK item in SCREEN menu (39).
   To exit from the blank screen and return to the input signal screen, press the BLANK button again.

- The projector automatically exits from the BLANK mode when some control buttons are pressed.

NOTE • The sound is not connected with the blank screen function. If necessary, set the volume or mute first.

Using the menu function

This projector has the following menus: PICTURE, IMAGE, INPUT, SETUP, AUDIO, SCREEN, OPTION, MIU, C.C. and EASY MENU. The EASY MENU consists of functions often used, and the other menus are classified into each purpose and brought together as the Advanced Menu. Each of these menus is operated using the same methods. The basic operations of these menus are as follows.



1. Press the MENU button on the remote control or one of the cursor buttons on the projector.
   The Advanced MENU, or EASY MENU that has priority just after powered on, will appear.
   If you want to move the menu position, use the cursor buttons after pressing the POSITION button. While the projector is displaying any menu, the MENU button on the projector works as the cursor buttons.

In the EASY MENU

2. If you want to change it to the Advanced MENU, select the "Go to Advanced Menu..."
3. Use the ▲/▼ cursor buttons to select an item to operate.
4. Use the ◄/► cursor buttons to operate the item.

In the Advanced MENU

2. Use the ▲/▼ cursor buttons to select a menu.
   If you want to change it to the EASY MENU, select the EASY MENU.
   Then press the ► cursor button on the projector or remote control, or the ENTER button on the remote control to select an item. The display of the selected menu will be active.
3. Use the ▲/▼ cursor buttons to select an item to operate.
   Then press the ► cursor button on the projector or remote control, or the ENTER button on the remote control to progress. The operation menu of the selected item will appear.
4. Use the ▲/▼ cursor buttons to operate the item.

- Some functions cannot be performed when a certain input port is selected, or when a certain input signal is displayed.
- When you want to reset the operation, press the RESET button on the remote control during the operation. Note that items whose functions are performed simultaneously with operation (ex. LANGUAGE, H PHASE, VOLUME etc.) cannot be reset.
- In the Advanced MENU, when you want to return to the previous display, press the ◄ cursor button on the projector or remote control, or the ESC button on the remote control.

5. Press the MENU button on the remote control again to close the menu and complete this operation.
   Even if you do not do anything, the dialog will automatically disappear after about 10 seconds.

EASY MENU

From the EASY MENU, items shown in the table below can be performed.
Select an item using the ▲/▼ cursor buttons on the projector or remote control. Then perform it according to the following table.

<table>
<tr><th>Item</th><th>Description</th></tr>
<tr><td>ASPECT</td><td>Using the ◄/► buttons switches the mode for aspect ratio.
See the ASPECT item in IMAGE menu (📖30).</td></tr>
<tr><td>AUTO KEYSTONE / EXECUTE</td><td>Using the ► button executes the auto keystone function.
See the AUTO KEYSTONE / EXECUTE item in SETUP menu (📖36).</td></tr>
<tr><td>KEYSTONE /</td><td>Using the ◄/► buttons corrects the vertical keystone distortion.
See the KEYSTONE / item in SETUP menu (📖36).</td></tr>
<tr><td>KEYSTONE</td><td>Using the ◄/► buttons corrects the horizontal keystone distortion.
See the KEYSTONE item in SETUP menu (📖37).</td></tr>
<tr><td>PICTURE MODE</td><td>Using the ◄/► buttons switches the picture mode.
The picture modes are combinations of GAMMA and COLOR TEMP settings. Choose a suitable mode according to the projected source.
⇨ NORMAL ⇔ CINEMA ⇔ DYNAMIC ⇔ BOARD(BLACK) ⇦
⇨ DAYTIME ⇔ WHITEBOARD ⇔ BOARD(GREEN) ⇦
<table>
<tr><th></th><th>COLOR TEMP</th><th>GAMMA</th></tr>
<tr><td>NORMAL</td><td>#2 MID</td><td>#1 DEFAULT</td></tr>
<tr><td>CINEMA</td><td>#3 LOW</td><td>#2 DEFAULT</td></tr>
<tr><td>DYNAMIC</td><td>#1 HIGH</td><td>#3 DEFAULT</td></tr>
<tr><td>BOARD(BLACK)</td><td>#4 Hi-BRIGHT-1</td><td>#4 DEFAULT</td></tr>
<tr><td>BOARD(GREEN)</td><td>#5 Hi-BRIGHT-2</td><td>#4 DEFAULT</td></tr>
<tr><td>WHITEBOARD</td><td>#2 MID</td><td>#5 DEFAULT</td></tr>
<tr><td>DAYTIME</td><td>#6 Hi-BRIGHT-3</td><td>#6 DEFAULT</td></tr>
</table>
• When the combination of GAMMA and COLOR TEMP differs from pre-assigned modes above, the display on the menu for the PICTURE MODE is “CUSTOM”. Please refer to the GAMMA and COLOR TEMP (📖27, 28) items in PICTURE menu.
• When this function is performed, a certain extra such as a line may appear.</td></tr>
</table>

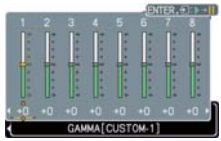
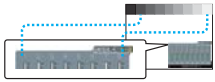
(continued on next page)

EASY MENU (continued)

Item	Description
BRIGHTNESS	Using the ◄/► buttons adjusts the brightness. See the BRIGHTNESS item in PICTURE menu (📖27).
CONTRAST	Using the ◄/► buttons adjusts the contrast. See the CONTRAST item in PICTURE menu (📖27).
COLOR	Using the ◄/► buttons adjusts the strength of whole color. See the COLOR item in PICTURE menu (📖28).
TINT	Using the ◄/► buttons adjusts the tint. See the TINT item in PICTURE menu (📖28).
SHARPNESS	Using the ◄/► buttons adjusts the sharpness. See the SHARPNESS item in PICTURE menu (📖28).
WHISPER	Using the ◄/► buttons turns off/on the whisper mode. See the WHISPER item in SETUP menu (📖37).
MIRROR	Using the ◄/► buttons switches the mode for mirror status. See the MIRROR item in SETUP menu (📖37).
RESET	Performing this item resets all of the EASY MENU items except the FILTER TIME and LANGUAGE. A dialog is displayed for confirmation. Selecting the RESET using the ▲ button performs resetting.
FILTER TIME	The usage time of the air filter is shown in the menu. Performing this item resets the filter time which counts usage time of the air filter. A dialog is displayed for confirmation. Selecting the RESET using the ▲ button performs resetting. See the FILTER TIME item in OPTION menu (📖45).
LANGUAGE	Using the ◄/► buttons changes the display language. See the LANGUAGE item in SCREEN menu (📖39).
Go to Advanced Menu...	Select “Go to Advanced Menu…” on the menu, and press the ► or ENTER button to use the menu of PICTURE, IMAGE, INPUT, SETUP, AUDIO, SCREEN, OPTION, MIU or C.C..

PICTURE menu

From the PICTURE menu, items shown in the table below can be performed.
Select an item using the ▲/▼ cursor buttons on the projector or remote control, and press the ► cursor button on the projector or remote control, or the ENTER button on the remote control to execute the item. Then perform it according to the following table.

Item	Description
BRIGHTNESS	Using the ▲/▼ buttons adjusts the brightness. Light ⇔ Dark
CONTRAST	Using the ▲/▼ buttons adjusts the contrast. Strong ⇔ Weak
GAMMA	Using the ▲/▼ buttons switches the gamma mode. #1 DEFAULT ⇔ #1 CUSTOM ⇔ #2 DEFAULT ⇔ #2 CUSTOM ⇔ #3 DEFAULT ⇕ ⇕ #6 CUSTOM #3 CUSTOM ⇕ ⇕ #6 DEFAULT ⇔ #5 CUSTOM ⇔ #5 DEFAULT ⇔ #4 CUSTOM ⇔ #4 DEFAULT **To adjust CUSTOM** Selecting a mode whose name includes CUSTOM and then pressing the ► button or the ENTER button displays a dialog to aid you in adjusting the mode. This function is useful when you want to change the brightness of particular tones. Choose an item using the ◄/► buttons, and adjust the level using the ▲/▼ buttons.  You can display a test pattern for checking the effect of your adjustment by pressing the ENTER button. Each time you press the ENTER button, the pattern changes as below. No pattern ⇨ Gray scale of 9 steps ⇨ Ramp ⇦ Gray scale of 15 steps The eight equalizing bars correspond to eight tone levels of the test pattern (Gray scale of 9 steps) except the darkest in the left end. If you want to adjust the 2nd tone from left end on the test pattern, use the equalizing adjustment bar “1”. The darkest tone at the left end of the test pattern cannot be controlled with any of equalizing adjustment bar. • When this function is performed, lines or other distortion may appear. 

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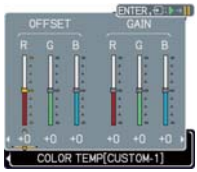
PICTURE menu (continued)

Item	Description
COLOR TEMP	Using the ▲/▼ buttons switches the color temperature mode. #1 HIGH⇔#1 CUSTOM⇔#2 MID⇔#2 CUSTOM⇔#3 LOW ⇕ ⇕ #6 CUSTOM #3 CUSTOM ⇕ ⇕ #6 Hi-BRIGHT-3 #4 Hi-BRIGHT-1 ⇕ ⇕ #5 CUSTOM ⇔ #5 Hi-BRIGHT-2 ⇔ #4 CUSTOM **To adjust CUSTOM**  Selecting a mode whose name includes CUSTOM and then pressing the ► button or the ENTER button displays a dialog to aid you in adjusting the OFFSET and GAIN of the selected mode. OFFSET adjustments change the color intensity on the whole tones of the test pattern. GAIN adjustments mainly affect color intensity on the brighter tones of the test pattern. Choose an item using the ◄/► buttons, and adjust the level using the ▲/▼ buttons. You can display a test pattern for checking the effect of your adjustment by pressing the ENTER button. Each time you press the ENTER button, the pattern changes as below. No pattern ⇨ Gray scale of 9 steps⇨ ⇧ Ramp ⇦ Gray scale of 15 steps • When this function is performed, lines or other distortion may appear.
COLOR	Using the ▲/▼ buttons adjusts the strength of whole color. Strong ⇔ Weak • This item can be selected only for a video signal, s-video, component video or HDMI signal.
TINT	Using the ▲/▼ buttons adjusts the tint. Greenish ⇔ Reddish • This item can be selected only for a video signal, s-video, component video or HDMI signal.
SHARPNESS	Using the ▲/▼ buttons adjusts the sharpness. Strong ⇔ Weak • There may be some noise and/or the screen may flicker for a moment when an adjustment is made. This is not a malfunction.

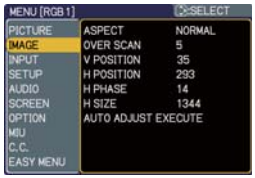
(continued on next page)

PICTURE menu (continued)

<table>
<tr><th>Item</th><th>Description</th></tr>
<tr><td>ACTIVE IRIS</td><td>Using the ▲/▼ cursor buttons changes the active iris control mode.
PRESENTATION ⇔ THEATER ⇔ TURN OFF
<table>
<tr><td></td><td>Feature</td></tr>
<tr><td>PRESENTATION</td><td>The active iris displays the best presentation image for both bright and dark scenes.</td></tr>
<tr><td>THEATER</td><td>The active iris displays the best theater image for both bright and dark scenes.</td></tr>
<tr><td>TURN OFF</td><td>The active iris is always open.</td></tr>
</table>
• The screen may flicker when the PRESENTATION or THEATER modes are selected. If this occurs select TURN OFF.</td></tr>
<tr><td>MY MEMORY</td><td>This projector has 4 memories for adjustment data (for all the items of the PICTURE menu).
Selecting a function using the ▲/▼ buttons and pressing the ► or ENTER button performs each function.
LOAD-1 ⇔ LOAD-2 ⇔ LOAD-3 ⇔ LOAD-4
SAVE-4 ⇔SAVE-3 ⇔ SAVE-2 ⇔ SAVE-1
<u>LOAD-1, LOAD-2, LOAD-3, LOAD-4</u>
Performing a LOAD function loads the data from the memory linked in the number included in the function’s name, and adjusts the picture automatically depending on the data.
• The LOAD functions whose linked memory has no data are skipped.
• Remember that the current adjusted condition will be lost by loading data. If you want to keep the current adjustment, please save it before performing a LOAD function.
• There may be some noise and the screen may flicker for a moment when loading data. This is not malfunction.
• The LOAD functions can be also performed by the MY MEMORY button which can be set by the MY BUTTON item in OPTION menu (📖46).
<u>SAVE-1, SAVE-2, SAVE-3, SAVE-4</u>
Performing a SAVE function saves the current adjustment data into the memory linked in the number included in the function’s name.
• Remember that the current data being stored of a memory will be lost by saving a new data into the memory.</td></tr>
</table>

IMAGE menu

From the IMAGE menu, items shown in the table below can be performed.
Select an item using the ▲/▼ cursor buttons on the projector or remote control, and press the ► cursor button on the projector or remote control, or ENTER button on the remote control to execute the item. Then perform it according to the following table.



Item	Description
ASPECT	Using the ▲/▼ buttons switches the mode for aspect ratio. **For an RGB or MIU signal** NORMAL ⇔ 4:3 ⇔ 16:9 ⇔ SMALL **For an HDMI signal** NORMAL ⇔ 4:3 ⇔ 16:9 ⇔ 14:9 ⇔ SMALL **For a Video signal, S-video signal or Component video signal** 4:3 ⇔ 16:9 ⇔ 14:9 ⇔ SMALL **For no signal** 4:3 (fixed) • The NORMAL mode keeps the original aspect ratio of the signal.
OVER SCAN	Using the ▲/▼ buttons adjusts the over-scan ratio. Large (It reduces picture) ⇔ Small (It magnifies picture) • This item can be selected only for a video, s-video, component and HDMI signal. • When this adjustment is too large, certain degradation may appear at the frame area of the picture. In such a case, please adjust small.
V POSITION	Using the ▲/▼ buttons adjusts the vertical position. Up ⇔ Down • Over-adjusting the vertical position may cause noise to appear on the screen. If this occurs, please reset the vertical position to the default setting. Pressing the RESET button when the V POSITION is selected will reset the V POSITION to the default setting. • When this function is performed on a video signal, s-video signal, or component video signal of 480i@60 or 576i@50 input the range of this adjustment depends on the OVER SCAN (🕮***above***) setting. It is not possible to adjust when the OVER SCAN is set to 10. • This item cannot be selected for an HDMI signal.
H POSITION	Using the ▲/▼ buttons adjusts the horizontal position. Left ⇔ Right • Over-adjusting the horizontal position may cause noise to appear on the screen. If this occurs, please reset the horizontal position to the default setting. Pressing the RESET button when the H POSITION is selected will reset the H POSITION to the default setting. • When this function is performed on a video signal, s-video signal, or component video signal of 480i@60 or 576i@50 input the range of this adjustment depends on the OVER SCAN (🕮***above***) setting. It is not possible to adjust when the OVER SCAN is set to 10. • This item cannot be selected for an HDMI signal.

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IMAGE menu (continued)

Item	Description
H PHASE	Using the ▲/▼ buttons adjusts the horizontal phase to eliminate flicker. Right ⇔ Left • This item can be selected only for an RGB signal or a component video signal. (except 480i@60, 576i@50, SCART RGB input.)
H SIZE	Using the ▲/▼ buttons adjusts the horizontal size. Large ⇔ Small • This item can be selected only for an RGB signal. • When this adjustment is excessive, the picture may not be displayed correctly. In such a case, please reset the adjustment by pressing the RESET button on the remote control during this operation.
AUTO ADJUST EXECUTE	Selecting this item performs the automatic adjustment feature. **For an RGB signal** The vertical position, the horizontal position and the horizontal phase will be automatically adjusted. Make sure that the application window is set to its maximum size prior to attempting to use this feature. A dark picture may still be incorrectly adjusted. Use a bright picture when adjusting. **For a video signal and s-video signal** The video format best suited for the respective input signal will be selected automatically. This function is available only when the AUTO is selected for the VIDEO FORMAT item in the INPUT menu (🕮33). The vertical position and horizontal position will be automatically set to the default. **For a component video signal** The vertical position, horizontal position and horizontal phase will be automatically set to the default. • The automatic adjustment operation requires approx. 10 seconds. Also please note that it may not function correctly with some input. When this function is performed for a video signal, a certain extra such as a line may appear outside a picture. • The items adjusted by this function may vary when the FINE or DISABLE is selected for the AUTO ADJUST item of the SERVICE item in the OPTION menu (🕮47).

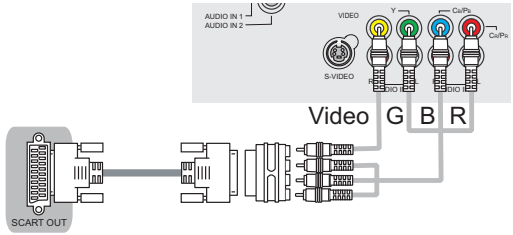
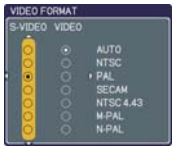
INPUT menu

From the INPUT menu, items shown in the table below can be performed.
Select an item using the ▲/▼ cursor buttons on the projector or remote control, and press the ► cursor button on the projector or remote control, or ENTER button on the remote control to execute the item. Then perform it according to the following table.

Item	Description
PROGRESSIVE	Using the ▲/▼ buttons switches the progress mode. TV ⇔ FILM ⇔ TURN OFF • This function is performed only for an interlaced signal at the VIDEO or S-VIDEO input, and for 480i@60, 576i@50 or 1080i@50/60 signal at the COMPONENT or HDMI input. • When TV or FILM is selected, the screen image will be sharp. FILM adapts to the 2-3 Pull-Down conversion system. But these may cause a certain defect (for example, jagged line) of the picture for a quick moving object. In such a case, please select TURN OFF, even though the screen image may lose the sharpness.
VIDEO NR	Using the ▲/▼ buttons switches the noise reduction mode. HIGH ⇔ MID ⇔ LOW • This function is performed only for the VIDEO or S-VIDEO input, and for 480i@60, 576i@50 or 1080i@50/60 signal at the COMPONENT or HDMI input. • When this function is excessive, it may cause a certain degradation of the picture.
3D-YCS	Using the ▲/▼ buttons switches the 3D-YCS mode. STILL ⇔ MOVIE ⇔ TURN OFF • This function performs only at a VIDEO input of NTSC, and PAL. • MOVIE is the mode for images with a lot of motions like movies, and STILL is the mode for images with few motions or completely still ones like slides.
COLOR SPACE	Using the ▲/▼ buttons switches the mode for color space. AUTO ⇔ RGB ⇔ SMPTE240 ⇔ REC709 ⇔ REC601 • This item can be selected only for an RGB signal or a component video signal (except 480i@60, 576i@50 and SCART RGB). • The AUTO mode automatically selects the optimum mode. • The AUTO operation may not work well at some signals. In such a case, it might be good to select a suitable mode except AUTO.

(continued on next page)

INPUT menu (continued)

<table>
<tr><th>Item</th><th>Description</th></tr>
<tr><td>COMPONENT</td><td>Using the ▲/▼ buttons switches the function of the COMPONENT (Y, CB/PB, CR/PR) port.
COMPONENT ⇔ SCART RGB
When the SCART RGB is selected, the COMPONENT (Y, CB/PB, CR/PR) and VIDEO ports will function as a SCART RGB port. A SCART adapter or SCART cable is required for a SCART RGB input to the projector. For details, contact your dealer.
 
</td></tr>
<tr><td>VIDEO FORMAT</td><td>Set the video format for the S-VIDEO port and VIDEO port.
(1) Use the ◄/► buttons to select the input port.
(2) Using the ▲/▼ buttons switches the mode for video format.
AUTO ⇔ NTSC ⇔ PAL ⇔ SECAM
⇔ N-PAL ⇔ M-PAL ⇔ NTSC4.43 ⇔
 

• This item is performed only for a video signal from the VIDEO port or the S-VIDEO port.
• The AUTO mode automatically selects the optimum mode.
• The AUTO operation may not work well for some signals. If the picture becomes unstable (e.g. an irregular picture, lack of color), please select the mode according to the input signal.</td></tr>
<tr><td>HDMI</td><td>Using the ▲/▼ cursor buttons changes the HDMI signal mode.
AUTO ⇔ NORMAL ⇔ ENHANCED
<table><tr><th></th><th>Feature</th></tr><tr><td>AUTO</td><td>Selecting the optimum mode automatically.</td></tr><tr><td>NORMAL</td><td>Suitable for DVD signals (16-235)</td></tr><tr><td>ENHANCED</td><td>Suitable for VGA signals (0-255)</td></tr></table>• If the contrast of the screen image is too strong or too weak, try finding a more suitable mode.</td></tr>
</table>

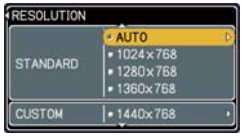
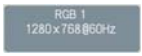
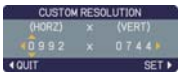
(continued on next page)

INPUT menu (continued)

Item	Description
FRAME LOCK	Set the frame lock function on/off for each port. (1) Use the ▲/▼ buttons to select one of following ports. QUIT ⇔ RGB1 ⇔ RGB2 ⇔ HDMI (2) Use the ◄/► buttons to turns the frame lock function on/off . TURN ON ⇔ TURN OFF • This item can be performed only on a signal with a vertical frequency of 50 to 60 Hz. • When the TURN ON is selected, moving pictures are displayed more smoothly. • This function may cause a certain degradation of the picture. In such a case, please select the TURN OFF.
RGB IN	Set the RGB input signal type for the RGB port. (1) Use the ◄/► buttons to select the RGB port to be set. RGB1 ⇔ RGB2 (2) Use the ▲/▼ buttons to select the RGB input signal type. AUTO ⇔ SYNC ON G OFF • Selecting the AUTO mode allows you to input a sync on G signal or component signal from the port. • In the AUTO mode, the picture may be distorted with certain input signals. In such a case, remove the signal connector so that no signal is received and select the SYNC ON G OFF, and then reconnect the signal.

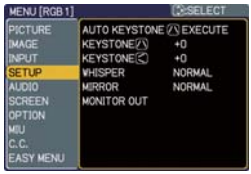
(continued on next page)

INPUT menu (continued)

Item	Description
RESOLUTION	The resolution for the RGB1 and RGB2 input signals can be set on this projector. (1) In the INPUT menu select the RESOLUTION using the ▲/▼ buttons and press the ► button. The RESOLUTION menu will be displayed.  (2) In the RESOLUTION menu select the resolution you wish to display using the ▲/▼ buttons. Selecting AUTO will set a resolution appropriate to the input signal. (3) Pressing the ► or ENTER button when selecting a STANDARD resolution will automatically adjust the horizontal and vertical positions, clock phase and horizontal size. The INPUT-INFORMATION- dialog (📖48) will be displayed.  (4) To set a custom resolution use the ▲/▼ buttons to select the CUSTOM and the CUSTOM RESOLUTION BOX will be displayed. Set the horizontal (HORZ) and vertical (VERT) resolutions using the ▲/▼/◄/► buttons. It is not guaranteed to work this function properly on any resolutions.  (5) To save the setting place the cursor on the right-most digit and press the ► button. The horizontal and vertical positions, clock phase and horizontal size will be automatically adjusted. After the INPUT-INFORMATION- dialog (📖48) has displayed for about 10 seconds the screen will return to the RESOLUTION menu displaying the changed resolution. (6) To revert back to the previous resolution without saving changes place the cursor on the left-most digit and press the ◄ button. The screen will then return to the RESOLUTION menu displaying the previous resolution. • For some pictures, this function may not work well.

SETUP menu

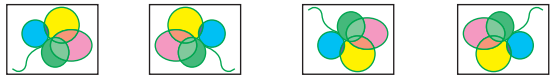
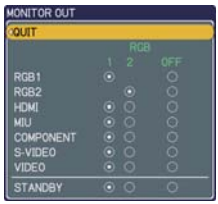
From the SETUP menu, items shown in the table below can be performed.
Select an item using the ▲/▼ cursor buttons on the projector or remote control, and press the ► cursor button on the projector or remote control, or the ENTER button on the remote control to execute the item. Then perform it according to the following table.



Item	Description
AUTO KEYSTONE /\ EXECUTE	Selecting this item performs the Automatic keystone distortion correction. Projector automatically corrects vertical keystone distortion due to the (forward/backward) setup angle by itself. This function will be executed only once when selected in the menu. When the slant of the projector is changed, execute this function again. • The adjustable range of this function will vary among inputs. For some input, this function may not work well. • When V:INVERT or H&V:INVERT is selected to the MIRROR item in the SETUP menu, if the projector screen is inclined or angled downward, this function may not work correctly. • When the zoom adjustment is set to the TELE (telephoto focus), this function may be excessive. This function should be used when the zoom adjustment is set to the full WIDE (wide-angle focus) whenever possible. • When the projector is placed on the level (about ±3°), this function may not work. • When the projector is inclined to near ±30 degree or over, this function may not work well. • When the vertical lens shift is not set fully upward (not set fully downward for the optional lens type FL-601 only (📖47), this function may not work well. • When the horizontal lens shift is not set to the center, this function may not work well. • This function will be unavailable when the Transition Detector is on (📖52).
KEYSTONE /	Using the ▲/▼ buttons corrects the vertical keystone distortion. Shrink the top of the image ⇔ Shrink the bottom of the image • The adjustable range of this function will vary among inputs. For some input, this function may not work well. • When the horizontal lens shift is not set to the center, this function may not work well. • This function will be unavailable when the Transition Detector is on (📖52).

(continued on next page)

SETUP menu (continued)

Item	Description
KEYSTONE	Using the ▲/▼ buttons corrects the horizontal keystone distortion. Shrink the right of the image ⇔ Shrink the left of the image • The adjustable range of this function will vary among inputs. For some input, this function may not work well. • When the zoom adjustment is set to the TELE (telephoto focus), this function may be excessive. This function should be used when the zoom adjustment is set to the full WIDE (wide-angle focus) whenever possible. • When the vertical lens shift is not set fully upward (not set fully downward for the optional lens type FL-601 only (📖47)), this function may not work well. • This function will be unavailable when the Transition Detector is on (📖52).
WHISPER	Using the ▲/▼ buttons turns off/on the whisper mode. NORMAL ⇔ WHISPER • When the WHISPER is selected, acoustic noise and screen brightness are reduced.
MIRROR	Using the ▲/▼ buttons switches the mode for mirror status.  NORMAL ⇔ H:INVERT ⇔ V:INVERT ⇔ H&V:INVERT If the Transition Detector is TURN ON and MIRROR status is changed, Transition Detector Alarm (📖52) will be displayed when projector is restarted after the power switch is turned off.
MONITOR OUT	The combination of a picture shown on screen and output from the RGB OUT port can be arranged in the menu. The picture coming into the port selected in the (2) is output to the RGB OUT port while an image from the port chosen in the (1) is on screen. (1) Choose a picture input port using ▲/▼ buttons. QUIT ⇔ RGB1 ⇔ RGB2 ⇔ HDMI ⇔ MIU STANDBY ⇔ VIDEO ⇔ S-VIDEO ⇔ COMPONENT(Y, C_B/P_B, C_R/P_R) • Choose STANDBY, to select the output signal from the RGB OUT port in the standby mode. • While QUIT is selected, pressing the ◄ button returns to the previous menu. (2) Select one of the RGB ports using ◄/► buttons. Choosing the RGB1 allows the following choice. RGB1 ⇔ OFF Choosing the RGB2 allows the following choice. RGB2 ⇔ OFF Choosing other input or STANDBY allows the following choice. RGB1 ⇔ RGB2 ⇔ OFF • OFF disables the RGB OUT port. 

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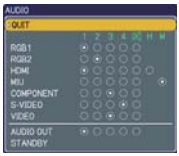
AUDIO menu

From the AUDIO menu, items shown in the table below can be performed.
Select an item using the ▲/▼ cursor buttons on the projector or remote control, and press the ► cursor button on the projector or remote control, or ENTER button on the remote control to execute the item. Then perform it according to the following table.

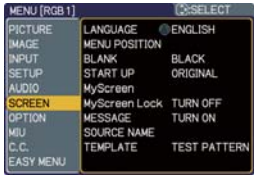
NOTE • The speaker sound may distorted or the case may be trembling when the volume is too high or treble/bass is emphasized or WOW is activated. In that case, make the volume reduced, bass/treble low or WOW effect to be weakend.

Item	Description
VOLUME	Using the ▲/▼ buttons adjusts the volume. High ⇔ Low
TREBLE	Using the ▲/▼ buttons adjusts the treble level. High ⇔ Low
BASS	Using the ▲/▼ buttons adjusts the bass level. High ⇔ Low
SRS WOW SRS WOW	Using the ▲/▼ buttons switches the mode for SRS WOW mode. HIGH ⇔ MID ⇔ TURN OFF • SRS WOW® accomplishes this by providing a panoramic three-dimensional audio image that extends the sound field in both the horizontal and vertical planes, and lowers the perceived bass response well beyond the low frequency limitations of the drivers. Adjust it depending on the user's preference.
SPEAKER	Using the ▲/▼ buttons turns the speaker function on/off. TURN ON ⇔ TURN OFF • When the TURN ON is selected the built-in speaker works.
AUDIO	Allocates the audio ports. (1) Choose a picture input port using the ▲/▼ buttons. QUIT ⇔ RGB1 ⇔ RGB2 ⇔ HDMI ⇔ MIU AUDIO OUT STANDBY ⇔ VIDEO ⇔ S-VIDEO ⇔ COMPONENT (2) Select the audio port to be interlocked with the input port using the ◄/► buttons. 1 ⇔ 2 ⇔ 3 ⇔ 4 ⇔ 🔇 ⇔ H/M • "M" and "H" are abbreviations of MIU and HDMI. • M or H can be selected for MIU or HDMI port only. When M or H is selected, the audio signal to MIU or HDMI port will be output if MIU or HDMI is chosen as a display source. • 🔇 disables the audio output. • When 🔇 is selected to VIDEO, S-VIDEO or COMPONENT port, the C.C. (Closed Caption) is automatically activated, if the C.C. is set to AUTO in the DISPLAY item of the C.C. menu and the signal from the input port supports the C.C. feature (📖64).
HDMI AUDIO	The HDMI AUDIO is set to 1 as default. In case the HDMI audio does not work well, try 2. 1 ⇔ 2



SCREEN menu

From the SCREEN menu, items shown in the table below can be performed.
Select an item using the ▲/▼ cursor buttons on the projector or remote control, and press the ► cursor button on the projector or remote control, or ENTER button on the remote control to execute the item. Then perform it according to the following table.



<table>
<tr><th>Item</th><th>Description</th></tr>
<tr><td>LANGUAGE</td><td>Using the ▲/▼ buttons switches the OSD (On Screen Display) language.
ENGLISH ⇔ FRANÇAIS ⇔ DEUTSCH ⇔ ESPAÑOL ⇔ ITALIANO
⇕ ⇕
TÜRKÇE NORSK
⇕ ⇕
POLSKI NEDERLANDS
⇕ ⇕
SUOMI PORTUGUÊS
⇕ ⇕
РУССКИЙ ⇔ SVENSKA ⇔ 한글 ⇔ 繁體中文 ⇔ 简体中文 ⇔ 日本語</td></tr>
<tr><td>MENU POSITION</td><td>Using the ▲/▼/◄/► buttons adjusts the menu position.
To quit the operation, press the MENU button on the remote control or keep no operation for about 10 seconds.</td></tr>
<tr><td>BLANK</td><td>Using the ▲/▼ buttons switches the mode for the blank screen.
The blank screen is a screen for the temporarily blanking feature (23). It is displayed by pressing the BLANK button on the remote control.
MyScreen ⇔ ORIGINAL ⇔ BLUE ⇔ WHITE ⇔ BLACK
⇧ ⇩
<table><tr><th></th><th>Feature</th></tr><tr><td>MyScreen</td><td>Screen can be registered by the MyScreen item (41).</td></tr><tr><td>ORIGINAL</td><td>Screen preset as the standard screen.</td></tr><tr><td>BLUE, WHITE, BLACK</td><td>Plain screens in each color.</td></tr></table>• To avoid remaining as an afterimage, the MyScreen or ORIGINAL screen will change to the plain black screen after several minutes.</td></tr>
</table>

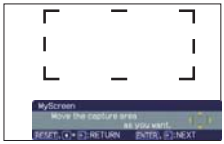
(continued on next page)

SCREEN menu (continued)

<table>
<tr><th>Item</th><th>Description</th></tr>
<tr><td>START UP</td><td>Using the ▲/▼ buttons switches the mode for the start-up screen. The start-up screen is a screen displayed when no signal or an unsuitable signal is detected.
MyScreen ⇔ ORIGINAL ⇔ TURN OFF
<table>
<tr><th></th><th>Feature</th></tr>
<tr><td>MyScreen</td><td>Screen can be registered by the MyScreen item (📖41).</td></tr>
<tr><td>ORIGINAL</td><td>Screen preset as the standard screen.</td></tr>
<tr><td>TURN OFF</td><td>Plain black screen.</td></tr>
</table>
• To avoid remaining as an afterimage, the MyScreen or ORIGINAL screen will change to the BLANK screen (📖39) after several minutes. If also the BLANK screen is the MyScreen or ORIGINAL, the plain black screen is instead used.
• When the TURN ON is selected to the MyScreen PASSWORD of SECURITY item in OPTION menu (📖50), the START UP is fixed to MyScreen.</td></tr>
</table>

(continued on next page)

SCREEN menu (continued)

Item	Description
MyScreen	This item allows you to capture an image for use as a MyScreen image which can be used as the BLANK screen and START UP screen. Display the image you want to capture before executing the following procedure. 1. Selecting this item displays a dialog titled “MyScreen”. It will ask you if you start capturing an image from the current screen. Please wait for the target image to be displayed, and press the ENTER button on the remote control when the image is displayed. The image will freeze and the frame for capturing will appear. To stop performing, press the RESET or ESC button on the remote control. 2. Using the ▲/▼/◄/► buttons adjusts the frame position. Please move the frame to the position of the image which you want to use. The frame may not be able to be moved for some input signals.  To start registration, press the ENTER button on the remote control. To restore the screen and return to the previous dialog, press the RESET or ESC button on the remote control. Registration takes several minutes. When the registration is completed, the registered screen and the following message is displayed for several seconds: **“MyScreen registration is finished.”** If the registration failed, the following message is displayed: **“A capturing error has occurred. Please try again.”** • This item cannot be selected for an HDMI signal. • This function cannot be selected when the TURN ON is selected to the MyScreen Lock item (📖*below*). • This function cannot be selected when the TURN ON is selected to the MyScreen PASSWORD of SECURITY item in OPTION menu (📖*50*).
MyScreen Lock	Using the ▲/▼ buttons turns on/off the MyScreen lock function. TURN ON ⇔ TURN OFF When the TURN ON is selected, the item MyScreen is locked. Use this function for protecting the current MyScreen. • This function cannot be selected when the TURN ON is selected to the MyScreen PASSWORD of SECURITY item in OPTION menu (📖*50*).

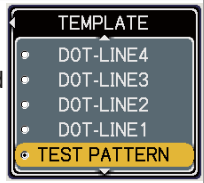
(continued on next page)

SCREEN menu (continued)

Item	Description
MESSAGE	Using the ▲/▼ buttons turns on/off the message function. TURN ON ⇔ TURN OFF When the TURN ON is selected, the following message function works. "AUTO IN PROGRESS" while automatically adjusting "NO INPUT IS DETECTED" "SYNC IS OUT OF RANGE" "INVALID SCAN FREQ" "Searching…." while searching for the input "Detecting…." while an input signal is detected The indication of the input signal displayed by changing The indication of the aspect ratio displayed by changing The indication of the PICTURE MODE displayed by changing The indication of the ACTIVE IRIS displayed by changing The indication of the MY MEMORY displayed by changing The indication of "FREEZE" and "II" while freezing the screen by pressing the FREEZE button. • When the TURN OFF is selected, please remember if the picture is freezing. Do not mistake freezing for a malfunction (📖22).
SOURCE NAME	Each input port for this projector can have a name applied to it. (1) Use the ▲/▼ buttons on the SCREEN menu to select SOURCE NAME and press the ► button. The SOURCE NAME menu will be displayed. (2) Use the ▲/▼ buttons on the SOURCE NAME menu to select the port to be named and press the ► button. Right side of the menu is blank until a name is specified. The SOURCE NAME dialog will be displayed. (3) The current name will be displayed on the first line. Use the ▲/▼/◄/► buttons and the ENTER or INPUT button to select and enter characters. The RESET button can be used to erase 1 character at a time. Also if you move the cursor to DELETE or ALL CLEAR on screen and push the ENTER or INPUT button, 1 character or all characters will be erased. The name can be a maximum of 16 characters. (4) To change an already inserted character, press the ▲ button to move the cursor to the first line, and use the ◄/► buttons to move the cursor on the character to be changed. After pressing the ENTER or INPUT button, the character is selected. Then, follow the same procedure as described at the item (3) above. (5) To finish entering text, move the cursor to the SAVE on screen and press the ENTER or INPUT button. To revert to the previous name without saving changes, move the cursor to the CANCEL on screen and press the ENTER or INPUT button.

(continued on next page)

SCREEN menu (continued)

Item	Description
TEMPLATE	Using ▲/▼ buttons switches the mode for the template screen. The selected template pattern can be displayed when the MY BUTTON allocated to the TEMPLATE function is pressed (*46*). ↱ DOT-LINE4 ⇔ DOT-LINE3 ⇔ DOT-LINE2 TEST PATTERN ⇔ DOT-LINE1↵ 

OPTION menu

From the OPTION menu, items shown in the table below can be performed.
Select an item using the ▲/▼ cursor buttons on the projector or remote control, and press the ► cursor button on the projector or remote control, or ENTER button on the remote control to execute the item, except for the items LAMP TIME and FILTER TIME. Then perform it according to the following table.

Item	Description
AUTO SEARCH	Using the ▲/▼ buttons turns on/off the automatic signal search function. TURN ON ⇔ TURN OFF When the TURN ON is selected, detecting no signal automatically cycles through input ports in the following order. The search is started from the current port. Then when an input is found, the projector will stop searching and display the image. RGB 1 ⇨ RGB 2 ⇨ HDMI ⇨ MIU ⇨ COMPONENT ⇨ S-VIDEO ⇨ VIDEO • The MIU input is skipped, as long as no image is sent from PC on the "Live Mode" (📖55).
AUTO KEYSTONE	Using the ▲/▼ buttons turns on/off the automatic keystone function. TURN ON ⇔ TURN OFF TURN ON : Automatic keystone distortion correction will be executed whenever changing the slant of the projector. TURN OFF : This function is disabled. Please execute the AUTO KEYSTONE EXECUTE in the SETUP menu for automatic keystone distortion correction. • When the projector is suspended from the ceiling this feature will not function properly so select the TURN OFF. • This function will be unavailable when the Transition Detector is on (📖52).
AUTO ON	Using the ▲/▼ buttons turns on/off the AUTO ON function. TURN ON ⇔ TURN OFF When set to the TURN ON, the lamp in projector will be automatically turned on without the usual procedure (📖17), only when the projector is supplied with the power after the power was cut while the lamp was on. • This function does not work as long as the power has been supplied to the projector while the lamp is off. • After turning the lamp on by the AUTO ON function, if neither input nor operation is detected for about 30 minutes, the projector is turned off, even though the AUTO OFF function (📖45) is disabled.

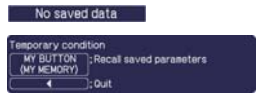
(continued on next page)

OPTION menu (continued)

Item	Description
AUTO OFF	Using the ▲/▼ buttons adjusts the time to count down to automatically turn the projector off. Long (max. 99 minutes) ⇔ Short (min. 0 minute = DISABLE) When the time is set to 0, the projector is not turned off automatically. When the time is set to 1 to 99, and when the passed time with no-signal or an unsuitable signal reaches at the set time, the projector lamp will be turned off. If one of the projector's buttons or the remote control buttons is pressed or one of the commands (except get commands) is transmitted to the CONTROL port during the corresponding time, projector will not be turned off. Please refer to the section “Turning off the power” (📖*17*).
LAMP TIME	The lamp time is the usage time of the lamp, counted after the last resetting. It is shown in the OPTION menu. Pressing the RESET button on the remote control or the ► button of the projector displays a dialog. To reset the lamp time, select the RESET using the ▲ button. RESET ⇦ CANCEL • Please reset the lamp time only when you have replaced the lamp, for a suitable indication about the lamp. • For the lamp replacement, see the section "Lamp" (📖*65, 66*).
FILTER TIME	The filter time is the usage time of the air filter, counted after the last resetting. It is shown in the OPTION menu. Pressing the RESET button on the remote control or the ► button of the projector displays a dialog. To reset the filter time, select the RESET using the ▲ button. RESET ⇦ CANCEL • Please reset the filter time only when you have cleaned or replaced the air filter, for a suitable indication about the air filter. • For the air filter cleaning, see the section "Air filter" (📖*67*).

(continued on next page)

OPTION menu (continued)

Item	Description
MY BUTTON	This item is to assign one of the following function to MY BUTTON 1 and 2 on the remote control (📖*6*). Choose 1 or 2 on the MY BUTTON menu using the ◄/► button first. Then using the ▲/▼ buttons sets one of the following functions to the chosen button. • RGB1: Sets port to RGB1. • RGB2: Sets port to RGB2. • HDMI: Sets port to HDMI. • MIU: Sets port to MIU. • COMPONENT: Sets port to COMPONENT (Y, CB/PB, CR/PR). • S-VIDEO: Sets port to S-VIDEO. • VIDEO: Sets port to VIDEO. • INFORMATION: Displays the INPUT -INFORMATION- (📖*48*) or MIU -INFORMATION- (📖*63*) or nothing. • AUTO KEYSTONE ⏢ : Performs automatic keystone distortion correction (📖*36*). • MY MEMORY: Loads one of adjustment data stored (📖*29*). When more than one data are saved, the adjustment changes every time the MY BUTTON is pushed. When no data is saved in memory, the dialog "No saved data" appears. When the current adjustment is not saved to memory, the dialog as shown in the right appears. If you want to keep the current adjustment, please press the ◄ button to quit. Otherwise loading a data will overwrite the current adjusted condition.  • ACTIVE IRIS: Changes the active iris mode. • PICTURE MODE: Changes the PICTURE MODE (📖*25*). • FILTER RESET: Displays the filter time reset confirmation dialogue (📖*45*). • AV MUTE : Turns the picture and audio on/off. • TEMPLATE: Makes the template pattern selected to the TEMPLATE item (📖*43*) appear or disappear. • MY IMAGE: Displays the MY IMAGE menu (📖*62*). • LIVE MODE : Sets port to MIU and display an image on the LIVE mode. While using the LIVE mode, the LIVE MODE SETTING menu is displayed. • THUMBNAIL : Sets port to MIU and displays the THUMBNAIL screen. • SLIDE SHOW : Sets port to MIU and starts the SLIDE SHOW display. • DIRECTORY : Sets port to MIU and displays the DIRECTORY screen. • REMOVE MEDIA : Displays the REMOVE MEDIA menu.
MY SOURCE	This item is to assign an input signals to MY SOURCE / DOC. CAMERA button on the remote control (📖*6, 19*). Using the ▲/▼ buttons sets one of the following input signal. ⮌ RGB1 ⇔ RGB2 ⇔ HDMI ⇔ MIU ⟸ VIDEO ⇔ S-VIDEO ⇔ COMPONENT ⟸
SERVICE	Selecting this item displays the SERVICE menu. Select an item using the ▲/▼ buttons, and press the ► button or the ENTER button on the remote control to execute the item. ⮌FANSPEED ⇔ AUTO ADJUST ⇔ GHOST ⇔ FILTER MESSAGE ⇔ LENS TYPE ⮎ FACTORY RESET ⇔ INFORMATION ⇔ REMOTE FREQ. ⇔ REMOTE RECEIV. ⇔ KEY LOCK

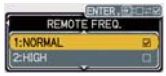
(continued on next page)

OPTION menu (continued)

Item	Description
SERVICE (continued)	**FANSPEED** Using the ▲/▼ buttons switches the rotation speed of the cooling fans. The HIGH is the mode for use at highlands etc. Note that the projector is noisier when the HIGH is selected. HIGH ⇔ NORMAL **AUTO ADJUST** Using the ▲/▼ buttons to select one of the mode. When the DISABLE is selected, the automatic adjustment feature is disabled. FINE ⇔ FAST ⇔ DISABLE FINE: Finer tuning including H.SIZE adjustment. FAST: Faster tuning, setting H.SIZE to prearranged data for the input signal. • Depending on conditions, such as input image, signal cable to the projector, environment around the projector, etc., the automatic adjustment may not work correctly. In such a case, please choose DISABLE to disable the automatic adjustment, and make adjustment manually. **GHOST** 1. Select a color element of ghost using the ◄/► buttons. 2. Adjust the selected element using the ▲/▼ buttons to disappear ghost. **FILTER MESSAGE** Use the ▲/▼ button to set the timer for the interval to show the message for cleaning up the air filter. 500h ⇔ 1000h ⇔ 1500h ⇔ 2000h ⇔ TURN OFF After choosing an item except TURN OFF, the message "REMINDER *** HRS PASSED AFTER THE LAST FILTER CHECK" will appear after the timer reaches the interval time set by this feature (🕮70). When the TURN OFF is chosen, the message will not appear. Utilize this feature to keep the air filter clean, setting the suitable time according to your environment of this projector. • Please check and clean the air filter periodically, even if there is no message. If the air filter becomes to be blocked by dust or others, the internal temperature will rise, which could cause malfunction, or reduce the lifetime of the projector. • Please be careful with the operating environment of the projector and the condition of the air filter. • This setting has an influence on the keystone distortion etc. • About the optional lens, ask you dealer. **LENS TYPE** Select the lens type currently used using the ▲/▼ buttons. 1 ⇔ 2 ⇔ 3 ⇔ 4 ⇔ 5 Please select one of them referring to the following. 1: for a standard lens (Type NL-600) 2: for a fixed short throw lens (Type FL-601) 3: for a short throw lens (Type SL-602) 4: for a long throw lens (Type LL-603) 5: for an ultra long throw lens (Type UL-604)

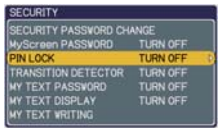
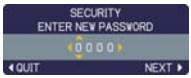
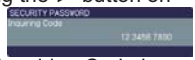
(continued on next page)

OPTION menu (continued)

Item	Description
SERVICE (continued)	**KEY LOCK** Using the ▲/▼ buttons turns on/off the key lock feature. When TURN ON is selected, the buttons on the projector except the STANDBY/ON button are locked. TURN ON ⇔ TURN OFF • Please use to avoid a mischief and touching accidentally. This function does not have any effect on the remote control. **REMOTE RECEIV.** (1) Select a remote sensor using the ▲/▼ button. 1:FRONT ⇔ 2:TOP ⇔ 3:REAR (2) Switch it using the ENTER or INPUT button. ☐ (off) ⇔ ☑ (on) • A sensor cannot be turned off when the other two are off. Always at least one sensor is on. **REMOTE FREQ.** Use the ▲/▼ button to change the Projector's remote sensor setting (📖*15*). 1:NORMAL ⇔ 2:HIGH Items with a checkmark are on. The factory default setting is for both 1:NORMAL and 2:HIGH to be on. If the remote control does not function correctly, set the this to either only 1 or only 2 as described in Remote Control Settings (📖*15*). Neither can be turned off at the same time.  **INFORMATION** Selecting this item displays a dialog titled “INPUT-INFORMATION-”. It shows the information about the current input. • The “FRAME LOCK” message on the dialog means the frame lock function is working. • The “SCART RGB” message means the COMPONENT port is working as a SCART RGB input port. Please refer to the COMPONENT item in INPUT menu (📖*33*). • This item can't be selected for no signal and sync out. • When the MY TEXT DISPLAY is set to TURN ON, the MY TEXT is displayed together with the input information in the INPUT-INFORMATION- box (📖*53*). **FACTORY RESET** Selecting RESET using the button ▲ performs this function. By this function, all the items in all of menus will collectively return to the initial setting. Note that the items LAMP TIME, FILTER TIME, LANGUAGE, SECURITY and MIU settings are not reset. RESET ⇦ CANCEL

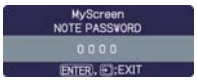
(continued on next page)

OPTION menu (continued)

Item	Description
SECURITY	This projector is equipped with security functions. User registration is required before using the security functions. Please contact your local dealer. **1. Using Security Features** **1.1 Inputting the PASSWORD** 1.1-1 Use the ▲/▼ buttons on the OPTION menu to select SECURITY and press the ► button. The ENTER PASSWORD box will be displayed. The factory default PASSWORD is **2600**. This PASSWORD can be changed (1.2 Changing the PASSWORD). • It is strongly recommended the factory default PASSWORD to be changed as soon as possible. 1.1-2 Use the ▲/▼/◄/► buttons to enter the registered PASSWORD. Move the cursor to the right side of the ENTER PASSWORD BOX and press the ► button to display the SECURITY menu.  • If an incorrect PASSWORD is input, the ENTER PASSWORD BOX will be displayed again. If incorrect PASSWORD is input 3 times, the projector will turn off. Afterwards the projector will turn off every time an incorrect PASSWORD is input. **1.2 Changing the PASSWORD** 1.2-1 Use the ▲/▼ buttons on the SECURITY menu to select SECURITY PASSWORD CHANGE and press the ► button to display the ENTER NEW PASSWORD BOX.  1.2-2 Use the ▲/▼/◄/► buttons to enter the new PASSWORD. 1.2-3 Move the cursor to the right side of the ENTER NEW PASSWORD BOX and press the ► button to display the NEW PASSWORD AGAIN BOX, enter the same PASSWORD again. 1.2-4 Move the cursor to the right side of the NEW PASSWORD AGAIN BOX and press the ► button and the NOTE NEW PASSWORD BOX will be displayed for about 20 seconds, please make note of the PASSWORD during this time. Pressing the ENTER button on the remote control or INPUT button on the projector will close the NOTE NEW PASSWORD BOX. • Please do not forget your PASSWORD. **1.3 If you have forgotten your PASSWORD** 1.3-1 Follow the procedure in 1.1-1 to display the ENTER PASSWORD BOX. 1.3-2 While the ENTER PASSWORD BOX is displayed, press and hold the RESET button on the remote control for about 3 seconds or press and hold the INPUT button for 3 seconds while pressing the ► button on the projector. The 10 digit Inquiring Code will be displayed.  • If there is no key input for about 55 seconds while the Inquiring Code is displayed, the menu will close. If necessary, repeat the process from 1.3-1. 1.3-3 Contact your dealer with the 10 digit Inquiring Code. Your PASSWORD will be sent after your user registration information is confirmed.

(continued on next page)

OPTION menu (continued)

Item	Description
SECURITY (continued)	**2. Using the MyScreen PASSWORD Function** The MyScreen PASSWORD function can be used to prohibit access to the MyScreen function and prevent the currently registered MyScreen image from being overwritten. **2.1 Turning on the MyScreen PASSWORD Function** 2.1-1 Use the ▲/▼ buttons on the SECURITY menu to select MyScreen PASSWORD and press the ► button to display the MyScreen PASSWORD on/off menu. **2.2 Setting the PASSWORD** 2.2-1 Display the MyScreen on/off menu using the procedure in 2.1-1. 2.2-2 Use the ▲/▼ buttons on the MyScreen PASSWORD on/off menu to select TURN ON. The ENTER PASSWORD BOX (small) will be displayed. ENTER PASSWORD BOX (small) 2.2-3 Use the ▲/▼/◄/► buttons to enter the PASSWORD. Move the cursor to the right side of the ENTER PASSWORD BOX (small) and press the ► button to display the PASSWORD AGAIN BOX, enter the same PASSWORD again. 2.2-4 Move the cursor to the right side of the PASSWORD AGAIN BOX and press the ► button to display the PASSWORD for about 20 seconds, please make note of the PASSWORD during this time.  Pressing the ENTER button on the remote control or INPUT button on the projector will return to MyScreen PASS WORD on/off menu. When a PASSWORD is set for MyScreen: • The MyScreen registration function (and menu) will be unavailable. • The MyScreen Lock menu will be unavailable. • The START UP setting will be locked on MyScreen (and the menu will be unavailable). Turning the MyScreen PASSWORD off will allow normal operation of these functions. • Please do not forget your MyScreen PASSWORD. **2.3 Turning the PASSWORD off** 2.3-1 Follow the procedure in 2.1-1 to display the MyScreen PASSWORD on/off menu. 2.3-2 Select TURN OFF to display the ENTER PASSWORD BOX (large). Enter the registered PASSWORD and the screen will return to the MyScreen on/off menu. If an incorrect PASSWORD is input, the menu will close. If necessary, repeat the process from 2.3-1. **2.4 If you have forgotten your PASSWORD** 2.4-1 Follow the procedure in 2.1-1 to display the MyScreen PASSWORD on/off menu. 2.4-2 Select TURN OFF to display the ENTER PASSWORD BOX (large). The 10 digit Inquiring Code will be displayed inside the BOX. 2.4-3 Contact your dealer with the 10 digit Inquiring Code. Your PASSWORD will be sent after your user registration information is confirmed. ENTER PASSWORD BOX (large)

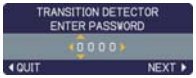
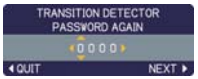
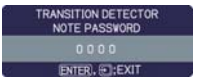
 (continued on next page)

OPTION menu (continued)

Item	Description
SECURITY (continued)	**3. Using the PIN LOCK Function** PIN LOCK is a function which prevents the projector from being used unless a registered Code is input. **3.1 Registering the PIN Code** 3.1-1 Use the ▲/▼ buttons on the SECURITY menu to select PIN LOCK and press the ► button or the ENTER button to display the PIN LOCK on/off menu. 3.1-2 Use the ▲/▼ buttons on the PIN LOCK on/off menu to select TURN ON and the PIN BOX will be displayed. 3.1-3 Input a 4 part PIN Code using the ▲/▼/◄/►, RGB and INPUT buttons. The PIN CODE AGAIN BOX will appear. Reenter the same PIN Code. This will complete the PIN Code registration. • If there is no key input for about 55 seconds while the PIN BOX or the PIN CODE AGAIN BOX is displayed, the menu will close. If necessary, repeat the process from 3.1-1. Afterwards, anytime the projector is restarted after the power switch is turned off the PIN BOX will be displayed. Enter the registered PIN Code. The projector can be used after entering the registered PIN Code. If an incorrect PIN Code is input, the PIN BOX will be displayed again. If an incorrect PIN Code is input 3 times, the projector will turn off. Afterwards the projector will turn off every time an incorrect PIN Code is input. The projector will also turn off if there is no key input for about 5 minutes while the PIN BOX is displayed. This function will activate only when the projector is started after the power switch was turned off. • Please do not forget your PIN Code. **3.2 Turning Off the PIN LOCK Function** 3.2-1 Follow the procedure in 3.1-1 to display the PIN LOCK on/off menu. Use the ▲/▼ buttons to select TURN OFF and the PIN BOX will be displayed. Enter the registered PIN Code to turn the PIN LOCK function off. If an incorrect PASSWORD is input 3 times, the menu will close. **3.3 If you have forgotten your PIN Code** 3.3-1 While the PIN BOX is displayed, press and hold the RESET button for three seconds or press and hold the INPUT button for 3 seconds while pressing the ► button on the projector. The 10 digit Inquiring Code will be displayed. • If there is no key input for about 5 minutes while the Inquiring Code is displayed, the projector will turn off. 3.3-2 Contact your dealer with the 10 digit Inquiring Code. Your PASSWORD will be sent after your user registration information is confirmed.

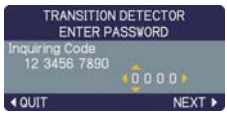
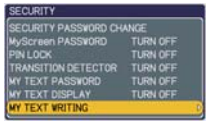
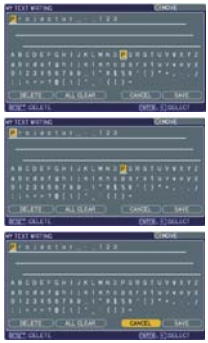
(continued on next page)

OPTION menu (continued)

Item	Description
SECURITY (continued)	**4. Using the Transition Detector Function** While the Transition Detector function is ON, when power switch is started to supply to the projector, it might react as below. • Transition Detector alarm shown below might appear on screen, if the projector has been moved or re-installed. • Transition Detector alarm might appear on screen, if the MIRROR setting has been changed. • Keystone adjustment feature has been prohibited as long as the Transition Detector function is ON. **4.1 Turning On the Transition Detector Function** 4.1-1 Use the ▲/▼ buttons on the SECURITY menu to select Transition Detector and press the ► or the ENTER button to display the Transition Detector on/off menu. Select TURN ON and the current angle and mirror setting will be recorded. • This feature may not function properly if the projector is not in a stable position when TURN ON is selected. 4.1-2 If this function is set to TURN ON when the vertical angle of the projector or mirror setting at which the projector is turned on is different than the previously recorded, the Transition Detector Alarm will be displayed and the projector will not display the input signal. Set the Transition Detector off in the SECURITY menu to display the input signal. If the Transition Detector ALARM is displayed for about 5 minutes, the lamp will turn off. This function will activate only when the projector is started after the power switch was turned off. **4.2 Setting the Transition Detector PASSWORD** 4.2-1 Use the ▲/▼ buttons on the SECURITY menu to select Transition Detector and press the ► or the ENTER button to display the Transition Detector on/off menu. 4.2-2 Use the ▲/▼ buttons on the Transition Detector on/off menu to select TURN ON. The ENTER PASSWORD BOX (small) will be displayed.  ENTER PASSWORD BOX (small) 4.2-3 Use the ▲/▼/◄/► buttons to enter a PASSWORD. Move the cursor to the right side of the ENTER PASSWORD BOX (small) and press the ► button to display the PASSWORD AGAIN BOX, enter the same PASSWORD again.  4.2-4 Move the cursor to the right side of the PASSWORD AGAIN BOX and press the ► button to display the PASSWORD for about 20 seconds, please make note of the PASSWORD during this time.  Pressing the ENTER button on the remote control or the INPUT button on the projector will return to the Transition Detector on/off menu. • Please do not forget your Transition Detector PASSWORD. **4.3 Setting the Transition Detector off** 4.3-1 Follow the procedure in 4.1-1 to display the Transition Detector on/off menu. 4.3-2 Select TURN OFF to display the ENTER PASSWORD BOX (large). Enter the registered PASSWORD and the screen will return to the Transition Detector on/off menu. If an incorrect PASSWORD is input, the menu will close. If necessary, repeat the process from 4.3-1.

 (continued on next page)

OPTION menu (continued)

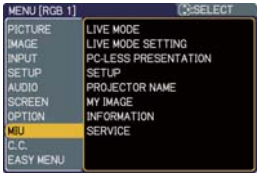
Item	Description
SECURITY (continued)	**4.4 If you have forgotten your PASSWORD** 4.4-1 Follow the procedure in 4.1-1 to display the Transition Detector on/off menu. 4.4-2 Select TURN OFF to display the ENTER PASSWORD BOX (large). The 10 digit Inquiring Code will be displayed inside the BOX. 4.4-3 Contact your dealer with the 10 digit Inquiring Code. Your PASSWORD will be sent after your user registration information is confirmed.  ENTER PASSWORD BOX (large) **5. Using the MY TEXT PASSWORD function** This item allows you to display your own message (MY TEXT) on the START UP screen and INPUT-INFORMATION-. It can be protected by a password to prevent it from being overwritten. **5.1 Writing the MY TEXT**  (1) Use the ▲/▼ buttons on the SECURITY menu to select the MY TEXT WRITING menu and press the ► button. The MY TEXT WRITING dialog will be displayed. (2) The current MY TEXT will be displayed on the first 3 lines. If not yet written, the lines will be blank. Use the ▲/▼/◄/► buttons and the ENTER or INPUT button to select and enter characters. The RESET button can be used to erase 1 character at a time. Also if you move the cursor to DELETE or ALL CLEAR on screen and push the ENTER or INPUT button, 1 character or all characters will be erased. The MY TEXT can be input up to 24 characters on each line.  (3) To change an already inserted character, press the ▲/▼ button to move the cursor to one of the first 3 lines, and use the ◄/► buttons to move the cursor on the character to be changed. After pressing the ENTER or INPUT button, the character is selected. Then, follow the same procedure as described at the item (2) above. (4) To finish entering text, move the cursor to the SAVE on screen and press the ENTER or INPUT button. To revert to the previous MY TEXT without saving changes, move the cursor to the CANCEL on screen and press the ENTER or INPUT button. • The MY TEXT WRITING function is available only when the MY TEXT PASSWORD function is set to TURN OFF. **5.2 Displaying the MY TEXT** (1) Use the ▲/▼ buttons on the SECURITY menu to select the MY TEXT DISPLAY menu and press the ► button to display the MY TEXT DISPLAY on/off menu. (2) Use the ▲/▼ buttons on the MY TEXT DISPLAY on/off menu to select on or off. TURN ON ⇔ TURN OFF When it is set TURN ON, the MY TEXT will be displayed on the START UP screen and the INPUT-INFORMATION- when the INFORMATION on the SERVICE menu is chosen. • This function is available only when the MY TEXT PASSWORD function is set to the TURN OFF.

(continued on next page)

OPTION menu (continued)

Item	Description
SECURITY (continued)	**5.3 Turning on the MY TEXT PASSWORD** The MY TEXT PASSWORD function can prevent the MY TEXT from being overwritten. 5.3-1 Turning on the MY TEXT PASSWORD function (1) Use the ▲/▼ buttons on the SECURITY menu to select the MY TEXT PASSWORD menu and press the ► button to display the MY TEXT PASSWORD on/off menu. 5.3-2 Setting the MY TEXT PASSWORD (1) Display the MY TEXT PASSWORD on/off menu using the procedure in 5.3-1 (2) Use the ▲/▼ buttons on the MY TEXT PASSWORD menu to select TURN ON. The ENTER PASSWORD BOX (small) will be displayed. ENTER PASSWORD BOX (small) (3) Use the ▲/▼/◄/► buttons to enter the PASSWORD. Move the cursor to the right side of the ENTER PASSWORD BOX (small) and press the ► button to display the PASSWORD AGAIN BOX, and then enter the same PASSWORD again. (4) Move the cursor to the right side of the PASSWORD AGAIN BOX and press ► button to display the PASSWORD for about 20 seconds, then please make note of the PASSWORD during this time. Pressing the ENTER button on the remote control or INPUT button on the projector will return to the MY TEXT PASSWORD on/off menu. When the PASSWORD is set for the MY TEXT; • The MY TEXT DISPLAY menu will be unavailable, which can prohibit changing the DISPLAY setting. • The MY TEXT WRITING menu will be unavailable, which can prevent the MY TEXT from being overwritten. 5.3-3 Turning the MY TEXT PASSWORD off (1) Follow the procedure in 5.3-1 to display the MY TEXT PASSWORD on/off menu. (2) Select TURN OFF to display the ENTER PASSWORD BOX (large). Enter the registered PASSWORD and the screen will return to the MY TEXT PASSWORD on/off menu. ENTER PASSWORD BOX (large) If an incorrect PASSWORD is input, the menu will close. If necessary, repeat the process from 5.3-3(1) 5.3.4 If you have forgotten your PASSWORD. (1) Follow the procedure in 5.3-1 to display the MY TEXT PASSWORD on/off menu. (2) Select TURN OFF to display the ENTER PASSWORD BOX (large). The 10 digit inquiring code will be displayed inside the box. (3) Contact your dealer with the 10 digit inquiring code. Your PASSWORD will be sent after your user registration information is confirmed.

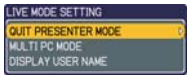
MIU menu



The MIU (Multi Information processing Unit) is a function to support the Network features and PC-LESS Presentation. Consult with your network administrator before connecting to an existing access point on your network. Incorrect network settings on this projector may cause trouble on the network. Select “MIU” from the main menu to access the following functions.

Select an item using the ▲/▼ cursor buttons on the projector or remote control, and press the ► cursor button on the projector or remote control, or ENTER button on the remote control to execute the item. Then perform it according to the following table. See the User’s Manual - Network Guide for details of MIU operation.

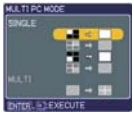
NOTE • The factory default setting for DHCP is TURN OFF. If your network has DHCP enabled, and needs to set IP ADDRESS, SUBNET MASK and DEFAULT GATEWAY automatically, please set DHCP to TURN ON (🕮*58*).
• If you are not utilizing SNTP (**🕮Date/Time Settings of the User’s Manual - Network Guide**), then you must set the DATE AND TIME (🕮*59*) during the initial installation.

<table>
<tr><th>Item</th><th colspan="2">Description</th></tr>
<tr><td>LIVE MODE</td><td colspan="2">Selecting this item sets the projector onto the “Live Mode”.
On the “Live Mode”, the projector displays the images from the PC via Network, supported by “Live Viewer 3” software. (Live Mode of the User’s Manual - Network Guide 🕮5)</td></tr>
<tr><td rowspan="2">LIVE MODE SETTING</td><td colspan="2">Selecting this item displays the LIVE MODE SETTING menu.
Use the ▲/▼ buttons to select an item, and the ► or ENTER button to perform the item.
  </td></tr>
<tr><td>QUIT PRESENTER MODE</td><td>The Presenter Mode that is set in the "Live Viewer 3" software installed into your PC can be turned to off. A message, QUIT PRESENTER MODE, will be displayed in about 3 seconds when the function is performed. The function is available only when the Presenter Mode is set to on in the the "Live Viewer 3" software. The current setting of the Presenter Mode is shown in the menu.

• The Presenter mode is a function that allows the projector to display an image sent by 1 PC only, even though the MIU feature on this projector support Multi PC mode.
• If the projector is required to display an image sent by other PC, execute the QUIT PRESENTER MODE function.
• See the 🕮User’s Manual – Network Guide for details.</td></tr>
</table>

(continued on next page)

MIU menu (continued)

<table>
<tr><th>Item</th><th colspan="2">Description</th></tr>
<tr><td rowspan="2">LIVE MODE SETTING (continued)</td><td>MULTI PC MODE</td><td>The projector supports the Single PC mode that displays an image on full screen sent by 1 PC, and the Multi PC mode that divides the screen into 4 zone and displays images in each zone sent by up to 4 PCs. The MULTI PC MODE function switches these modes.
 
SINGLE
Use the ▲/▼ buttons to select an item, and the ENTER or INPUT button to perform the item. The mode will be switched from the Multi PC mode to the Single PC mode and the quarter screen identified in the menu will be displayed on full screen.
MULTI
Use the ENTER or INPUT button to perform the item. The mode will be switched to the Multi PC mode and the screen will be divided to 4 zones.
• If the Presenter Mode is set to on in the PC whose image is currently displayed on screen, a message, QUIT PRESENTER MODE, will be displayed in about 3 seconds when the function is performed.
• The function is available when there is any PC connected to the projector in the Multi PC mode set in the "Live Viewer 3" software.</td></tr>
<tr><td>DISPLAY USER NAME</td><td>Selecting this item displays the Display User Name defined in the "Live Viewer 3" software in the PC whose image is on screen.
SINGLE PC mode

The Display User Name will be shown in the DISPLAY USER NAME box.
Examples
Display User name — Shown in the DISPLAY USER NAME box
PC_NAME0001 — PC_NAME0001
(remained as default) — Unnamed
(blank space)
(prohibited showing) — (Anonymous)

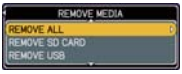
If there is no PC in the Single PC mode connected to the projector, the DISPLAY USER NAME box is shown as right.
MULTI PC mode

The Display User Names will be shown in the DISPLAY USER NAME box.
• See the 🕮User's Manual – Network Guide for details of the Display User Name setting.</td></tr>
</table>

(continued on next page)

MIU menu (continued)

<table>
<tr><th>Item</th><th colspan="2">Description</th></tr>
<tr><td rowspan="7">PC-LESS PRESENTATION</td><td colspan="2">Selecting this item displays the PC-LESS PRESENTATION menu.
Using the menu is able to make the projector display the images stored in an SD memory card or a USB memory, and realizes a presentation without a PC.
Use the ▲/▼/◄/► buttons to select an item, and the ► or ENTER button to perform the item.
• While displaying the image, to press the MENU button displays the PC-LESS PRESENTATION menu.
 </td></tr>
<tr><td>THUMBNAIL</td><td>Use the ▲/▼/◄/► buttons to select an image, and press the ENTER or INPUT button to display the image.
 </td></tr>
<tr><td>SLIDE SHOW</td><td>Slide show will start when you press the ENTER or ► button.</td></tr>
<tr><td>DIRECTORY</td><td>Use the ▲/▼ buttons to select an image or a folder, and press the ENTER or INPUT button to display the image or turn into the THUMBNAIL.

To open or close the folder, press the ►/◄ buttons.</td></tr>
<tr><td>DISPLAY SIZE</td><td>Use the ▲/▼ buttons to set the display size.
 </td></tr>
<tr><td>KEY CONFIG.</td><td>Use the ▲/▼ buttons to select key configuration from the 2 patterns.
 </td></tr>
<tr><td>REMOVE MEDIA</td><td>Use the ▲/▼ buttons to select a remove mode, and then the ENTER or ► button is pressed so the menu to excuse will appear.
  </td></tr>
<tr><td colspan="2">• Also these items can be set with Web Remote Control (Refer to Network Guide) except DISPLAY SIZE, KEY CONFIG. and REMOVE MEDIA.</td></tr>
</table>

(continued on next page)

MIU menu (continued)

<table>
<tr><th>Item</th><th colspan="2">Description</th></tr>
<tr><td rowspan="5">SETUP</td><td colspan="2">Selecting this item displays the MIU SETUP menu. Use the ▲/▼ buttons to select an item, and the ► or ENTER button on the remote control to perform the item.
</td></tr>
<tr><td>DHCP
(Dynamic Host Configuration Protocol)</td><td>Use the ▲/▼ buttons to turn DHCP on/off.
ON ⇔ OFF

Select OFF when the network does not have DHCP enabled.
• When the “DHCP” setting changes to “ON”, it takes a little time to obtain IP address from DHCP server.
• Auto IP function will be assigned an IP address if the projector could not obtain an IP address from server even if DHCP is “ON”.</td></tr>
<tr><td>IP ADDRESS</td><td>Use the ▲/▼/◄/► buttons to enter the IP ADDRESS. This function can only be used when DHCP is set to OFF.

• The IP ADDRESS is the number that identifies this projector on the network. You cannot have two devices with the same IP ADDRESS on the same network.
• The IP ADDRESS “0.0.0.0” is prohibited.</td></tr>
<tr><td>SUBNET MASK</td><td>Use the ▲/▼/◄/► buttons to enter the same SUBNET MASK used by your PC. This function can only be used when DHCP is set to OFF.

• The SUBNET MASK “0.0.0.0” is prohibited.</td></tr>
<tr><td>DEFAULT GATEWAY</td><td>Use the ▲/▼/◄/► buttons to enter the DEFAULT GATEWAY (a node on a computer network that serves as an access point to another network) address.

This function can only be used when DHCP is set to OFF.</td></tr>
<tr><td>DNS SERVER</td><td>Use the ▲/▼/◄/► buttons to input the DNS server address. The DNS server is a system to control domain names and IP addresses on the Network.
</td></tr>
</table>

(continued on next page)

MIU menu (continued)

Item	Description	
SETUP (continued)	**TIME DIFFERENCE**	Use the ▲/▼ buttons to enter the TIME DIFFERENCE. Set the same TIME DIFFERENCE as the one set on your PC. If unsure, consult your IT manager. Use the ◄ button to return to the menu after setting the TIME DIFFERENCE.
	DATE AND TIME	Use the ▲/▼/◄/► buttons to enter the Year (last two digits), Month, Date, Hour and Minute. • The projector will override this setting and retrieve DATE AND TIME information from the Time server when SNTP is enabled. **(📖Date/Time Settings of the User's Manual - Network Guide)**
	MODE	Use the ▲/▼ buttons to select the mode of the network communication system. Select it according to the setting of your PC. ADHOC ⇔ INFRASTRUCTURE
	CH	Use the ▲/▼ buttons to select the channel of the wireless LAN while using it. Select it according to the setting of your PC. The channels 1 to 11 are available. • The available channels would be various depending on a country. In addition, wireless network card might be required due to the standard.
	ENCRYPTION	Use the ▲/▼ buttons to select the encryption method to be used. WPA2-PSK(AES) ⇔ WPA-PSK(AES) ⇔ WPA-PSK(TKIP) ⇔ OFF ⇔ WEP 64bit ⇔ WEP 128bit

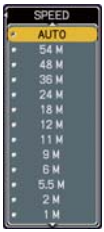
(continued on next page)

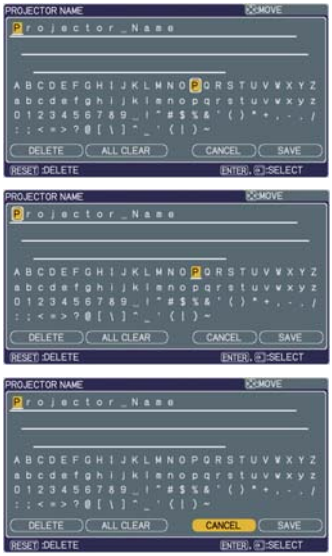
MIU menu (continued)

Item		Description
SETUP (continued)	**SSID**	Use the ▲/▼ buttons to select the SSID to display the SSID menu. **DEFAULT** Pressing the ► or ENTER button when one of the DEFAULT (#1~#4) is selected. **CUSTOM** Press the ► or ENTER button when the # 5 CUSTOM is selected. The SSID #5 CUSTOM menu will be appeared. (1) The current SSID will be displayed on the first line. If not yet written, the line will be blank. Use the ▲/▼/◄/► buttons and the ENTER or INPUT button to select and enter characters. The RESET button can be used to erase 1 character at a time. Also if you move the cursor to DELETE or ALL CLEAR on screen and push the ENTER or INPUT button, 1 character or all characters will be erased. The SSID can be input up to 32 characters. (2) To change an already inserted character, press the ▲/▼ button to move the cursor to one of the first 2 lines, and use the ◄/► buttons to move the cursor on the character to be changed. After pressing the ENTER or INPUT button, the character is selected. Then, follow the same procedure as described at the item (1) above. (3) To finish entering text, move the cursor to the SAVE on screen and press the ENTER or INPUT button. To revert to the previous SSID without saving changes, move the cursor to the CANCEL on screen and press the ENTER or INPUT button.

(continued on next page)

MIU menu (continued)

<table>
<tr><th>Item</th><th colspan="2">Description</th></tr>
<tr><td rowspan="2">SETUP
(continued)</td><td>SPEED</td><td>Use the ▲/▼ buttons to select the transfer rate.
(M : Mbps : Megabits per second)
AUTO⇔54M⇔48M⇔36M⇔24M⇔18M
⇕ ⇕
1M⇔2M⇔5.5M⇔6M⇔9M⇔11M⇔12M
• The AUTO mode automatically selects the optimum rate.
• Transfer rates may change due to the network situation.
  </td></tr>
<tr><td>NETWORK MODE</td><td>Use the ▲/▼ buttons to select the network mode.
WIRELESS ⇔ WIRED

• The network mode will be initialized whenever the power is turned on with the power switch.
• The WIRELESS will be enabled when the wireless network card is inserted.
• The WIRED will be enabled when the wireless network card is not inserted.</td></tr>
<tr><td>PROJECTOR NAME</td><td colspan="2">(1) Use the▲/▼ buttons on the MIU menu to select the PROJECTOR NAME menu and press the ► button. The PROJECTOR NAME dialog will be displayed.
(2) The current PROJECTOR NAME will be displayed on the first 3 lines. If not yet written, the lines will be blank. Use the ▲/▼/◄/► buttons and the ENTER or INPUT button to select and enter characters. The RESET button can be used to erase 1 character at a time. Also if you move the cursor to DELETE or ALL CLEAR on screen and push the ENTER or INPUT button, 1 character or all characters will be erased. The PROJECTOR NAME can be input up to 64 characters.
(3) To change an already inserted character, press the ▲/▼ button to move the cursor to one of the first 3 lines, and use the ◄/► buttons to move the cursor on the character to be changed. After pressing the ENTER or INPUT button, the character is selected. Then, follow the same procedure as described at the item (2) above.
(4) To finish entering text, move the cursor to the SAVE on screen and press the ENTER or INPUT button.
To revert to the previous PROJECTOR NAME without saving changes, move the cursor to the CANCEL on screen and press the ENTER or INPUT button.
  </td></tr>
</table>

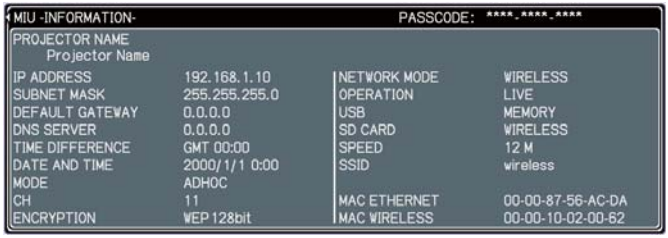
(continued on next page)

MIU menu (continued)

Item	Description
MY IMAGE	Selecting this item displays the MY IMAGE menu. Insert the SD memory card or USB memory into the projector before you use the MY IMAGE function (*12*). The application software “PJTransfer” is required to store image(s) into the projector. Use the ▲/▼ buttons to select an item which is a still image by the MY IMAGE (**MY IMAGE (Still Image Transfer) Display of the User’s Manual - Network Guide)** and the ► or ENTER button to display the image. • The item without image stored cannot be selected. • The image names are each displayed in 16 characters or less. **To switch the image displayed** Use the ▲/▼ buttons. **To return to the menu** Press the ◄ or ESC button on the remote control. **To erase the image displayed and its source file in the SD memory card or USB memory** (1) Press the RESET button on the remote control while displaying an image to display the MY IMAGE - RESET menu. (2) Press the ENTER button on the remote control or the INPUT button on the projector to perform to erase. To stop erasing, press the ESC button on the remote control or the ◄ button on the projector.

(continued on next page)

MIU menu (continued)

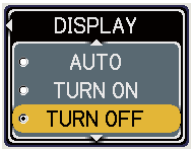
Item	Description
INFORMATION	Selecting this item displays the MIU-INFORMATION- dialog for confirming the network settings.  • The PROJECTOR NAME is displayed. • Nothing (blank) is shown in the “PROJECTOR NAME” and “SSID” field until you setup those items. (*63, 64*) • When the voltage level of the battery for the built in clock decreases, the set time may become incorrect even though accurate date and time are input. Replace the battery suitably. (*71*) • MAC wireless will not be displayed when the NETWORK MODE is set to the WIRED even if the wireless network card is mounted. • IP ADDRESS, SUBNET MASK and DEFAULT GATEWAY indicate “0.0.0.0” in the following condition. (1) The NETWORK MODE is set to the WIRELESS and the wireless network card is not mounted. (2) DHCP is ON and the projector does not get address from DHCP server. • Nothing (blank) is shown in the “CH”, “SPEED” and “MAC WIRELESS” field in case of either no wireless network card is inserted or “WIRED” mode is selected at NETWORK MODE, or both. • The actual performance and setting will be shown in the “CH ” and “SPEED” field, instead of the setting value in the SETUP menu.
SERVICE	Selecting this item displays the SERVICE menu. Use the ▲/▼ buttons to select an item, and the ► or ENTER button on the remote control to perform the item. **MIU RESTART** Use the ▲ button to restart the network communication. The network communication will be cut off once and restarted. EXECUTE ⇦ CANCEL • After selecting the EXECUTE, the MIU menu may not be controlled approximately 20 seconds. • If DHCP is ON, IP address may be changed.

C.C. (Closed Caption) menu

The closed caption setting can be changed through C.C. menu in the advance menu. Please select the item that you will change using ▲/▼ cursor buttons.

• The C.C. (Closed Caption) is the function that displays a transcript or dialog of the audio portion of a video, files or other presentation or other relevant sounds. It is required to have NTSC format video or 480i@60 format component video source supporting C.C. feature to utilize this function. It may not work properly, depending on equipment or signal source. In this case, please turn off the Closed Caption.

Item	Description
DISPLAY	Select Closed Caption DISPLAY setting from following options using ▲/▼buttons. TURN OFF ⇔ TURN ON ⇔ AUTO TURN OFF:Closed Caption is OFF TURN ON: Closed Caption is ON AUTO: Closed Caption automatically displays when the volume is muted. • The caption is not displayed when the OSD menu is active. • The Closed Caption is the function to display the dialogue, narration, and / or sound effects of a television program or other video sources. The Closed Caption availability is depending upon broadcaster and/or content.
MODE	Select Closed Caption MODE setting from following options using ▲/▼buttons. CAPTIONS ⇔ TEXT CAPTIONS: Display Closed Caption TEXT: Display Text data, which is for additional information such as news reports or a TV program guide. The information covers the entire screen. Not all of the C.C. program has Text information.
CHANNEL	Select Closed Caption CHANNEL from following options using ▲/▼buttons. 4 ⇔ 3 ⇔ 2 ⇔ 1 1: Channel 1, primary channel / language 2: Channel 2 3: Channel 3 4: Channel 4 The channel data may vary, depending on the content. Some channel might be used for secondary language or empty.



Maintenance

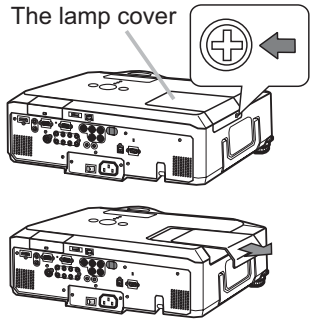
Lamp

A lamp has finite product life. Using the lamp for long periods of time could cause the pictures darker or the color tone poor. Note that each lamp has a different lifetime, and some may burst or burn out soon after you start using them. Preparation of a new lamp and early replacement are recommended. To prepare a new lamp, contact your dealer and tell the lamp type number.

Type number = DT00873

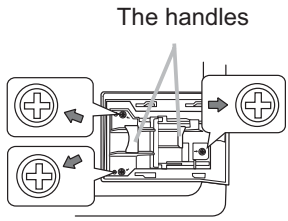
Replacing the lamp

1. Turn the projector off, and unplug the power cord. Allow the projector to cool for at least 45 minutes.
2. Prepare a new lamp. If the projector is mounted on a ceiling, or if the lamp has broken, also ask the dealer to replace the lamp.



In case of replacement by yourself,

3. Loosen the screw (marked by arrow) of the lamp cover and then slide the lamp cover to the side to remove it.
4. Loosen the 3 screws (marked by arrow) of the lamp, and slowly pick up the lamp by the handles.
5. Insert the new lamp, and retighten firmly the 3 screws of the lamp that are loosened in the previous process to lock it in place.
6. Slide the lamp cover back in place and firmly fasten the screw of the lamp cover.



7. Turn the projector on and reset the lamp time using the LAMP TIME item in the OPTION menu (45).
   (1) Press the MENU button to display a menu.
   (2) Point at the “Go to Advanced Menu …” in the menu using the ▼/▲ button, then press the ► button.
   (3) Point at the “OPTION” in the left column of the menu using the ▼/▲button, then press the ► button.
   (4) Point at the “LAMP TIME” using the ▼/▲ button, then press the ► button. A dialog will appear.
   (5) Press the ▲ button to select “RESET” on the dialog. It performs resetting the lamp time.

NOTE • Please reset the lamp time only when you have replaced the lamp, for a suitable indication about the lamp.

Lamp (continued)

Lamp warning

⚠ HIGH VOLTAGE ⚠ HIGH TEMPERATURE ⚠ HIGH PRESSURE

⚠**WARNING** ►The projector uses a high-pressure mercury glass lamp. The lamp can break with a loud bang, or burn out, if jolted or scratched, handled while hot, or worn over time. Note that each lamp has a different lifetime, and some may burst or burn out soon after you start using them. In addition, when the bulb bursts, it is possible for shards of glass to fly into the lamp housing, and for gas containing mercury to escape from the projector's vent holes.
►**About disposal of a lamp:** This product contains a mercury lamp; do not put it in a trash. Dispose of it in accordance with environmental laws.
• For lamp recycling, go to www.lamprecycle.org (in the US).
• For product disposal, contact your local government agency or www.eiae.org (in the US) or www.epsc.ca (in Canada).
For more information, call your dealer.

Disconnect the plug from the power outlet	• If the lamp should break (it will make a loud bang when it does), unplug the power cord from the outlet, and make sure to request a replacement lamp from your local dealer. Note that shards of glass could damage the projector's internals, or cause injury during handling, so please do not try to clean the projector or replace the lamp yourself. • If the lamp should break (it will make a loud bang when it does), ventilate the room well, and make sure not to breathe the gas that comes out of the projector vents, or get it in your eyes or mouth. • Before replacing the lamp, turn the projector off and unplug the power cord, then wait at least 45 minutes for the lamp to cool sufficiently. Handling the lamp while hot can cause burns, as well as damaging the lamp.
	• Never unscrew except the appointed (marked by an arrow) screws. • Do not open the lamp cover while the projector is suspended from a ceiling. This is dangerous, since if the lamp's bulb has broken, the shards will fall out when the cover is opened. In addition, working in high places is dangerous, so ask your local dealer to have the lamp replaced even if the bulb is not broken. • Do not use the projector with the lamp cover removed. At the lamp replacing, make sure that the screws are screwed in firmly. Loose screws could result in damage or injury.
	• Use only the lamp of the specified type. • If the lamp breaks soon after the first time it is used, it is possible that there are electrical problems elsewhere besides the lamp. If this happens, contact your local dealer or a service representative. • Handle with care: jolting or scratching could cause the lamp bulb to burst during use. • Using the lamp for long periods of time, could cause it dark, not to light up or to burst. When the pictures appear dark, or when the color tone is poor, please replace the lamp as soon as possible. Do not use old (used) lamps; this is a cause of breakage.

Air filter

Please check and clean the air filter periodically. When the indicators or a message prompts you to clean the air filter, comply with it as soon as possible. The air filter has two kinds of filters inside. Replace the filters when they are damaged or too soiled. To prepare the new filters, make contact with your dealer and tell the following type number.

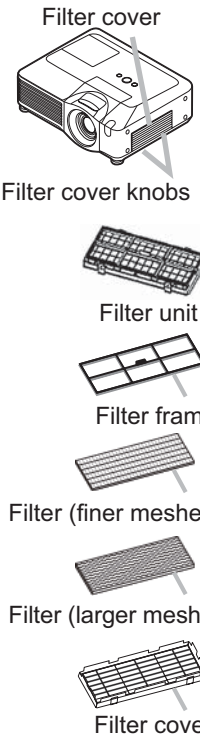
Type number = MU05661

When you replace the lamp, please replace the air filter. An air filter of specified type will come together with a replacement lamp for this projector.

1. Turn the projector off, and unplug the power cord. Allow the projector to sufficiently cool down.
2. Use a vacuum cleaner on and around the filter cover.
3. Pull the filter cover knobs while lifting it, to take the filter unit off.
4. Use a vacuum cleaner for the filter vent of the projector and both sides of the filter unit.

If the filters are damaged or too soiled, replace them according to the following procedure number 5 to 7. Otherwise, please jump to the procedure number 8.

5. Pull the filter frame's knob up while holding the filter cover to remove the filter frame, then take the filters out.
6. Set new filters where former filters were. Put the larger meshed filter into a filter cover first. Then put the finer meshed filter on the larger meshed one.
7. Put the filter frame back where it was.
8. Put the filter unit back into the projector.
9. Turn the projector on and reset the filter time using the FILTER TIME item in the EASY MENU
   (1) Press the MENU button to display a menu.
   (2) Point at the "FILTER TIME" using the ▼/▲ button, then press the ► button. A dialog will appear.
   (3) Press the ▲ button to select RESET on the dialog. It performs resetting the filter time.



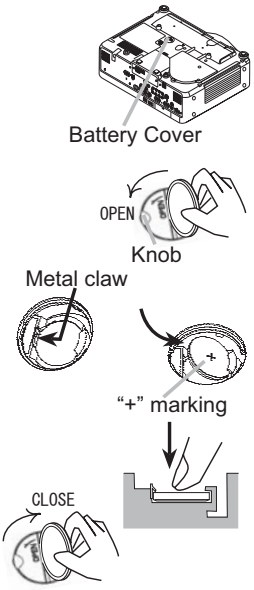
⚠**WARNING** ►Before taking care of the air filter, make sure the power cable is not plugged in, then allow the projector to cool sufficiently.
►Use only the air filter of the specified type. Do not use the projector without the air filter or the filter cover. It could result in a fire or malfunction to the projector.
►Clean the air filter periodically. If the air filter becomes clogged by dust or the like, internal temperatures rise and could cause a fire, a burn or malfunction to the projector.

NOTE • Please reset the filter time only when you have cleaned or replaced the air filter, for a suitable indication about the air filter.
• The projector may display the message such as "CHECK THE AIR FLOW" or turn off the projector, to prevent the internal heat level rising.

Internal clock battery

Consumption of the battery makes the clock not to work correctly. When the clock is wrong or it has stopped, please replace the battery according to the following procedures.

1. Turn the projector off, and unplug the power cord. Allow the projector to cool sufficiently.
2. After making sure that the projector has cooled adequately, slowly turn over the projector, so that the bottom is facing.
3. Remove the battery cover.
   Turn the battery cover in the direction indicated “OPEN” using such as coins. Then the battery cover will come up. While removing the battery cover, pick its knob.
4. Take the old battery out.
   Press the metal claw of the battery holder. Then the battery will come up. Remove the battery.
5. Put a new battery in.
   Replace battery with HITACHI MAXELL, Part No.CR2032 only. Use of another battery may present a risk of fire or explosion.
   Insert a new battery in the battery holder according to its minus terminal ⊖ as indicated in the battery holder, so that the side marked by + is facing. And push the battery into the battery holder fully to fix.
6. Close the battery cover.
   Replace the battery cover in place, then turn it in the direction indicated “CLOSE” using such as coins, to fix.



⚠**WARNING** ►Always handle the batteries with care and use them only as directed. Battery may explode if mistreated. Do not recharge, disassemble or dispose of in fire.
And also improper use may result in cracking or leakage, which could result in fire, injury and/or pollution of the surrounding environment.
• Be sure to use only the batteries specified.
• Make sure the plus and minus terminals are correctly aligned when loading a battery.
If the battery is placed in the battery holder upside-down, it may be hard to remove.
• Keep a battery away from children and pets. If swallowed consult a physician immediately for emergency treatment.
• Do not short circuit or solder a battery.
• Do not allow a battery in a fire or water. Keep batteries in a dark, cool and dry place.
• If you observe battery leakage, wipe out the leakage and then replace a battery. If the leakage adheres to your body or clothes, rinse well with water immediately.
• Obey the local laws on disposing the battery.

NOTE • If the battery is placed in the battery holder upside-down, follow the procedure below to remove and reload it properly.
1. Remove the battery cover as described in steps 1 through 3 above.
2. Turn the projector over again, so that the top of the projector is facing up.
3. While lifting the side of the projector closest to the lens, press the metal claw of the battery holder. The battery will fall out of the holder, so be careful not to lose it.
4. Turn the projector over once more, so that the bottom faces up, and reload the battery correctly.
• The internal clock’s time will be reset when the battery is removed.
Please reconfigure the time via the menu or a web browser after replacing the battery.
(🕮 Date/Time Settings in the User's Manual (detailed) - Network Guide)

Other care

Inside of the projector

In order to ensure the safe use of your projector, please have it cleaned and inspected by your dealer about once every year.

Caring for the lens

If the lens is flawed, soiled or fogged, it could cause deterioration of display quality. Please take care of the lens, being cautious of handling.

1. Turn the projector off, and unplug the power cord. Allow the projector to cool sufficiently.
2. After making sure that the projector is cool adequately, lightly wipe the lens with a commercially available lens-cleaning wipe. Do not touch the lens directly with your hand.

Caring for the cabinet and remote control

Incorrect care could have adverse influence such as discoloration, peeling paint, etc.

1. Turn the projector off, and unplug the power cord. Allow the projector to cool sufficiently.
2. After making sure that the projector is cool adequately, lightly wipe with gauze or a soft cloth.
   If the projector is extremely dirty, dip soft cloth in water or a neutral cleaner diluted in water, and wipe lightly after wringing well. Then, wipe lightly with a soft, dry cloth.

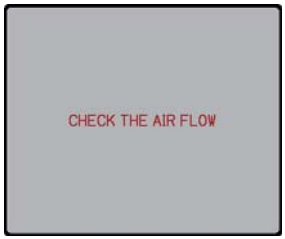
⚠**WARNING** ►Before caring, make sure the power switch is off and the power cable is not plugged in, and then allow the projector to cool sufficiently. The care in a high temperature state of the projector could cause a burn and/or malfunction to the projector.
►Never try to care for the inside of the projector personally. Doing is so dangerous.
►Avoid wetting the projector or inserting liquids in the projector. It could result in a fire, an electric shock, and/or malfunction to the projector.
• Do not put anything containing water, cleaners or chemicals near the projector.
• Do not use aerosols or sprays.

⚠**CAUTION** ►Please take right care of the projector according to the following. Incorrect care could cause not only an injury but adverse influence such as discoloration, peeling paint, etc.
►Do not use cleaners or chemicals other than those specified in this manual.
►Do not polish or wipe with hard objects.

Troubleshooting

Related messages

When the unit's power is on, messages such as those shown below may be displayed. When any such message is displayed on the screen, please follow the instructions described below. If the same message is displayed after the remedy, or if a message other than the following appears, please contact your dealer or service company.
Although these messages will be automatically disappeared around several minutes, it will be reappeared every time the power is turned on.

Message	Description
	There is no input signal. Please confirm the signal input connection, and the status of the signal source.
	The horizontal or vertical frequency of the input signal is not within the specified range. Please confirm the specs for your projector or the signal source specs.
	An improper signal is input. Please confirm the specs for your projector or the signal source specs.
	**The internal temperature is rising.** Please turn the power off, and allow the projector to cool down at least 20 minutes. After having confirmed the following items, please turn the power ON again. • Is there blockage of the air passage aperture? • Is the air filter dirty? • Does the peripheral temperature exceed 35°C? If the same indication is displayed after the remedy, please set FAN SPEED of the SERVICE item in the OPTION menu to HIGH.
	A note of precaution when cleaning the air filter. Please immediately turn the power off, and clean or change the air filter referring to the “Air filter” section of this manual (📖***67***). After you have cleaned or changed the air filter, please be sure to reset the filter timer (📖***26, 45***).

Regarding the indicator lamps

Lighting and flashing of the POWER indicator, the LAMP indicator, and the TEMP indicator have the meanings as described in the table below. Please follow the instructions within the table. If the same indication is displayed after the remedy, or if an indication other than the following is displayed, please contact your dealer or service company.

POWER indicator	LAMP indicator	TEMP indicator	Description
Lighting In Orange	Turned **off**	Turned **off**	**The projector is in a standby state.** Please refer to the section “Power On/Off”.
Blinking In Green	Turned **off**	Turned **off**	**The projector is warming up.** Please wait.
Lighting In Green	Turned **off**	Turned **off**	**The projector is in an on state.** Ordinary operations may be performed.
Blinking In Orange	Turned **off**	Turned **off**	**The projector is cooling down.** Please wait.
Blinking In Red	(discre-tionary)	(discre-tionary)	**The projector is cooling down. A certain error has been detected.** Please wait until the POWER indicator finishes blinking, and then perform the proper measure using the item descriptions below.
Blinking In Red or Lighting In Red	Lighting In Red	Turned **off**	**The lamp does not light, and there is a possibility that interior portion has become heated.** Please turn the power off, and allow the projector to cool down at least 20 minutes. After the projector has sufficiently cooled down, please make confirmation of the following items, and then turn the power on again. • Is there blockage of the air passage aperture? • Is the air filter dirty? • Does the peripheral temperature exceed 35°C? If the same indication is displayed after the remedy, please change the lamp referring to the section “Lamp”.
Blinking In Red or Lighting In Red	*Blinking In Red*	Turned **off**	**The lamp cover has not been properly fixed.** Please turn the power off, and allow the projector to cool down at least 45 minutes. After the projector has sufficiently cooled down, please make confirmation of the attachment state of the lamp cover. After performing any needed maintenance, turn the power on again. If the same indication is displayed after the remedy, please contact your dealer or service company.

(Continued on next page)

Regarding the indicator lamps (continued)

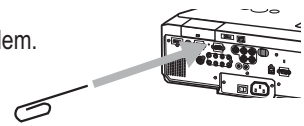
POWER indicator	LAMP indicator	TEMP indicator	Description
*Blinking In **Red** or* Lighting In **Red**	Turned **off**	*Blinking In **Red***	**The cooling fan is not operating.** Please turn the power off, and allow the projector to cool down at least 20 minutes. After the projector has sufficiently cooled down, please make confirmation that no foreign matter has become caught in the fan, etc., and then turn the power on again. If the same indication is displayed after the remedy, please contact your dealer or service company.
*Blinking In **Red** or* Lighting In **Red**	Turned **off**	Lighting In **Red**	**There is a possibility that the interior portion has become heated.** Please turn the power off, and allow the projector to cool down at least 20 minutes. After the projector has sufficiently cooled down, please make confirmation of the following items, and then turn the power on again. • Is there blockage of the air passage aperture? • Is the air filter dirty? • Does the peripheral temperature exceed 35°C? If the same indication is displayed after the remedy, please set FANSPEED of the SERVICE item in the OPTION menu to HIGH.
Lighting In **Green**	Simultaneous *blinking in **Red***		**It is time to clean the air filter.** Please immediately turn the power off, and clean or change the air filter referring to the section “Air Filter”. After cleaning or changing the air filter, please be sure to reset the filter timer. After the remedy, reset the power to ON.
Lighting In **Green**	Alternative *blinking in **Red***		**There is a possibility that the interior portion has become overcooled.** Please use the unit within the usage temperature parameters (5°C to 35°C). After the treatment, reset the power to ON.
*Blinking in **Green** for approx. 3 seconds*	Turned **off**	Turned **off**	**At least 1 “Power ON” schedule is saved to the projector.** (Please refer to the 🕮User’s Manual - Network Guide: Schedule Settings for more information.)

NOTE • When the interior portion has become overheated, for safety purposes, the power source is automatically turned off, and the indicator lamps may also be turned off. In such a case, press the “**O**” (OFF) side of the power switch, and wait at least 45 minutes. After the projector has sufficiently cooled down, please make confirmation of the attachment state of the lamp and lamp cover, and then turn the power on again.

Phenomena that may be easy to be mistaken for machine defects

⚠**WARNING** ►Never use the projector if abnormal operations such as smoke, strange odor, excessive sound, damaged casing or elements or cables, penetration of liquids or foreign matter, etc. should occur. In such cases, immediately turn off the power switch and then disconnect the power plug from the power outlet. After making sure that the smoke or odor has stopped, contact your dealer or service company.

1. Before requesting repair, please check in accordance with the following chart. This operation sometimes resolves your problem. If the situation cannot be corrected,



2. The projector's microprocessor may need to be reset. Please push the Shutdown switch by using a pin or similar and the projector will be turned off immediately. Before turning it again, wait at least 10 minutes to make the projector cool down enough.

3. Some setting may be wrong. Please use the FACTORY RESET function of the SERVICE item in the OPTION menu (🕮48) to reset all settings to factory default. Then, if the problem is not removed after the remedy, please contact your dealer or service company.

Phenomenon	Cases not involving a machine defect	Reference page
Power does not come on.	**The electrical power cord is not plugged in.** Correctly connect the power cord.	13
	The power switch is not set to the on position. Set the power switch to [|] (On).	17
	The main power source has been interrupted during operation such as by a power outage (blackout), etc. Please turn the power off, and allow the projector to cool down at least 2 minutes, then turn the power on again.	17
	Either there is no lamp and/or lamp cover, or either of these has not been properly fixed. Please turn the power off, and allow the projector to cool down at least 45 minutes. After the projector has sufficiently cooled down, please make confirmation of the attachment state of the lamp and lamp cover, and then turn the power on again.	65
Neither sounds nor pictures are outputted.	**The signal cables are not correctly connected.** Correctly connect the connection cables.	10
	Signal source does not correctly work. Correctly set up the signal source device by referring to the manual of the source device.	–
	The input changeover settings are mismatched. Select the input signal, and correct the settings.	18, 19
	The BLANK function for pictures and the MUTE function for sounds are working. AV mute may be active. Refer to the item "Sound does not come out" and "No pictures are displayed" on the next page to turn off the MUTE and BLANK functions.	18, 23

(Continued on next page)

Phenomena that may be easily mistaken for machine defects (continued)

Phenomenon	Cases not involving a machine defect	Reference page
Sound does not come out.	**The signal cables are not correctly connected.** Correctly connect the audio cables.	10
	The MUTE function is working. Restore the sound pressing the MUTE or VOLUME button on the remote control.	18
	The volume is adjusted to an extremely low level. Adjust the volume to a higher level using the menu function or the remote control.	18
	The AUDIO setting is not correct. Correctly set the items in the AUDIO menu.	38
	The audio on your HDMI equipment is not set to Linear PCM. The HDMI input on this projector supports Linear PCM audio only. Check the audio setting on your HDMI equipment.	11
	The audio on the HDMI input is muted. Change the audio setting in the AUDIO menu.	38
	The digital audio in HDMI signal does not work well. Use the analogue audio, connecting either an RCA audio cable or stereo mini cable.	10
No pictures are displayed.	**The lens cover is attached.** Remove the lens cover.	3, 17
	The signal cables are not correctly connected. Correctly connect the connection cables.	10
	The brightness is adjusted to an extremely low level. Adjust BRIGHTNESS to a higher level using the menu function or the remote control.	26
	The computer cannot detect the projector as a plug and play monitor. Make sure that the computer can detect a plug and play monitor using another plug and play monitor.	11
	The BLANK screen is displayed. Press the BLANK button on the remote control.	23
No pictures or disturbed pictures are displayed on HDMI input.	**The HDMI cable is not correctly connected.** Correctly connect the HDMI cable.	10
	Your HDMI equipment is not compatible with the projector This projector can be connected with another equipment that has HDMI or DVI connector, but with some equipment the projector may not work properly.	11
	Your HDMI equipment and the projector are not harmonized. Turn off the both equipment, and turn on them again	–
	The signal format on the HDMI is not supported. Check the video setting on your HDMI equipment.	11

 (Continued on next page)

Phenomena that may be easily mistaken for machine defects (continued)

Phenomenon	Cases not involving a machine defect	Reference page
Video screen display freezes.	**The FREEZE function is working.** Press the FREEZE button to restore the screen to normal.	22
Colors have a faded- out appearance, or Color tone is poor.	**Color settings are not correctly adjusted.** Perform picture adjustments by changing the COLOR TEMP, COLOR, TINT and/or COLOR SPACE settings, using the menu functions.	26, 28, 32
	COLOR SPACE setting is not suitable. Change the COLOR SPACE setting to AUTO, RGB, SMPTE240, REC709 or REC601.	32
Pictures appear dark.	**The brightness and/or contrast are adjusted to an extremely low level.** Adjust BRIGHTNESS and/or CONTRAST settings to a higher level using the menu function.	26
	The WHISPER function is working. Select NORMAL for the WHISPER item in the SETUP menu.	26, 37
	The lamp is approaching the end of its product lifetime. Replace the lamp.	65, 66
Pictures appear blurry.	**Either the focus and/or horizontal phase settings are not properly adjusted.** Adjust the focus using the focus ring, and/or H PHASE using the menu function.	20, 31
	The lens is dirty or misty. Clean the lens referring to the section “Caring for the lens”.	69
Pictures are trembling.	**The exhaust ventilation holes at front is blocked by some objects.** Remove any objects from front side of the projector.	4

NOTE • Although bright spots or dark spots may appear on the screen, this is a unique characteristic of liquid crystal displays, and it does not constitute or imply a machine defect.

Warranty and after-service

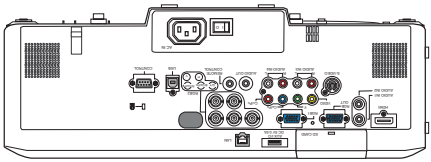
If a problem occurs with the equipment, first refer to the “Troubleshooting” and run through the suggested checks. If this does not resolve the problem, please contact your dealer or service company. They will tell you what warranty condition is applied.

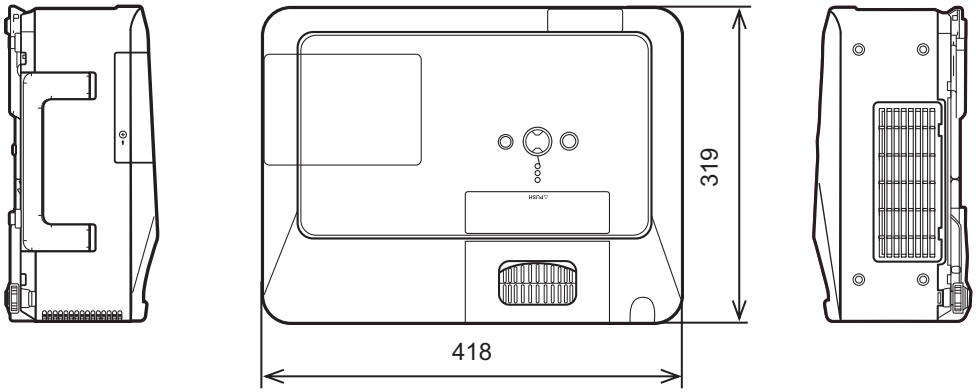
Specifications

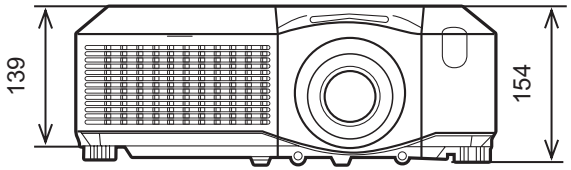
Item	Specifications
Product name	Liquid crystal projector
Liquid Crystal Panel	1024 horizontal x 768 vertical
Lens	Zoom lens F=1.7 ~ 1.9 f=24 ~ 29 mm (approx.)
Lamp	275W UHB
Audio output	4W x 4
Power supply	AC 100-120V/5.0A, AC220-240V/2.1A
Power consumption	460W
Temperature range	5 ~ 35°C (Operating)
Weight (mass)	7.1kg (approx.)
Ports	RGB1 ..... D-sub 15 pin mini x 1 RGB2 G/Y, B/C_B/P_B, R/C_R/P_R, H, V .....BNC x 5 S-VIDEO .....mini DIN 4 pin x 1 VIDEO .....RCA x 1 Y, C_B/P_B, C_R/P_R (component video) .....RCA x 3 HDMI .....HDMI x 1 AUDIO IN1 ..... Stereo mini x 1 AUDIO IN2 ..... Stereo mini x 1 AUDIO IN3 R/L .....RCA x 2 AUDIO IN4 R/L .....RCA x 2 RGB OUT ..... D-sub 15 pin mini x 1 AUDIO OUT ..... Stereo mini x 1 USB ..... USB (B) x 1 REMOTE CONTROL ..... Stereo mini x 1 CONTROL .....D-sub 9 pin x 1 LAN .....RJ45 x 1 AUX I/O ..... USB (A) x 1 SD CARD .....SD card slot x 1
Optional parts	**Lamp:** DT00873 **Air filter:** MU05661 **Wireless network card:** VA0833x* * For more information, please consult your dealer.

NOTE • These specifications are subject to change without notice.

Specifications (continued)





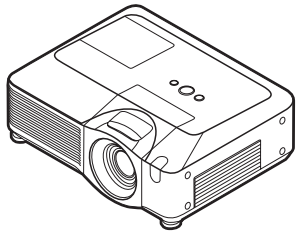


[unit: mm]

Projector

CP-X809W

User's Manual (detailed)
Network Guide



Thank you for purchasing this projector.
This projector has the network function that brings you the following main features.

- ✓ **Live Mode**
  This projector can project your PC images on screen through wireless or wired network, which can erase a signal cable from your desk.
- ✓ **Quick connection to your network**
  No expert knowledge is required any more. Various options for network setting give you a quick and simple connection to the network.
- ✓ **Web control**
  The projector can be controlled and monitored by a web browser software on your PC, which can help you to setup and maintain the projector.
- ✓ **PC-LESS Presentation**
  This projector can project images stored in an SD memory or a USB memory on screen, which allow you not to bring your PC with you.

This manual is only intended to explain Network functions only.
For safety, operations or any other issues, refer to the Safety Guide and User's Manual (concise and detailed).

⚠**WARNING** ►Before using this product, be sure to read all manuals for this product. After reading them, store them in a safe place for future reference.

NOTE • The information in this manual is subject to change without notice.
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Caution

[Restriction in terms of inserts or pulls storage media and wireless network card]
Do not pull out the wireless network card while the power is on. Do not touch the SD card while being accessed. The storage media can be pulled out only while not being accessed.
Perform the REMOVE MEDIA procedure or turn the projector off before pulling out the media. To perform the REMOVE MEDIA procedure, choose an suitable item among the REMOVE ALL, REMOVE SD CARD or REMOVE USB using the PC-LESS PRESENTATION menu under the MIU menu. (🕮***MIU menu in the User's Manual (detailed) – Operating Guide***)

⚠CAUTION

■The accompanying IEEE802.11b/g wireless network card uses the 2.4GHz radio frequency band. You do not need a radio license to use this card, but you should be aware of the following:

●DO NOT USE NEAR THE FOLLOWING!
- Microwave ovens
- Industrial, scientific or medical devices
- Designated low power radio stations
- Premises radio stations

Using the wireless network card near the above may result in radio interference, which in turn may result in a decrease in communication speed and even a complete loss of communication.

●Depending on the location where you attempt to use the wireless network card, there may be interference with the radio waves, which may result in a decrease in communication speed and even a complete loss of communication. In particular, please be aware that using the wireless network card in locations where there is reinforced steel, other metals and concrete may interfere with radio communication.

●Available Channels
The wireless network card uses the 2.4GHz radio frequency band, but depending on the country or region you are in, you might be limited to the channels you can use. Please refer to the following table for confirming where and with what channels you may use the accompanying IEEE802.11b/g wireless network card. Please consult with your dealer for countries not included in the table.

Country or Region	Available Channel
Japan	1 to 11
USA	1 to 11
Taiwan	1 to 11
Canada	1 to 11
UK, Spain, Germany, Italy, Austria, Switzerland, Belgium, Sweden, Netherlands, Portugal, Denmark, Finland, Greece, Norway, France, Ireland, Luxembourg, Iceland	1 to 11

●You may not bring the wireless network card into countries not listed above as there is a possibility that use of the wireless network card in those countries could lead to an infringement of established radio laws.

CE 0560 ⓘ

The manufacturer (Gemtek) hereby declare that this equipment (the wireless network card), model SD-Link11g is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

1. Main functions

1.1 Live Mode (Project images from PC)

The MIU (Multi Information processing Unit) enables “Wireless presentation” by choosing Live Mode.
The Live Mode gives you an ability to display the same image that is shown on the PC through the network by using an application program “Live Viewer 3” that is required to install into your PC. (Fig.1.1.a)
The “Live Viewer 3” captures PC screen image and sends to the projector through wired LAN or wireless LAN connection. (📖20)

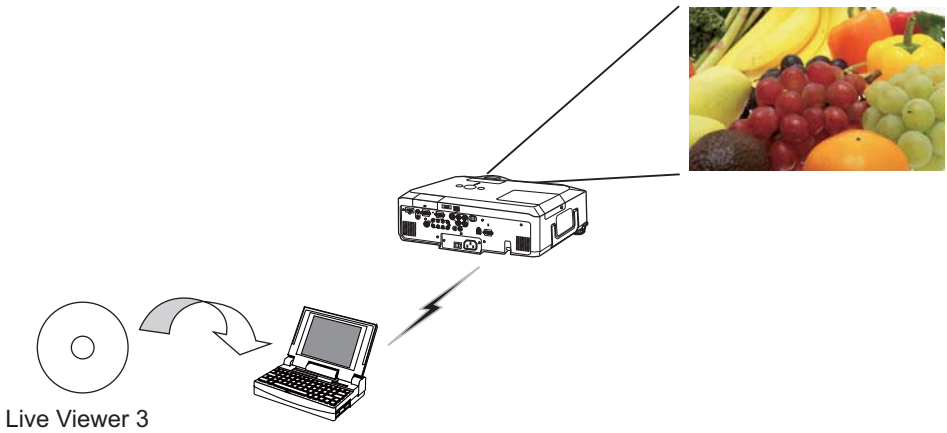


Fig. 1.1.a “Live Viewer 3” outlines (through wireless LAN connection)

Fig. 1.1.b “Live Viewer 3” Main menu

One projector can be connected with up to 4 PCs using “Live Viewer 3”. (📖54)

1.2 Quick connection to your network

The “Live Viewer 3” brings you very quick and simple connection to your network. The “Live Viewer 3” prepares some options for you to match your requirement.

1) Quick connection by the Passcode

The Passcode is a code that includes SSID and IP address and other information that are required for the network connection. The Passcode is given on screen by the projector, and then all you need to do is to input the code to the “Live Viewer 3” in your PC. (📖26)

Fig.1.2 PASSCODE on the projector screen

2) Connection by the profile for the network

You can set the information to connect the projector to your network as a profile data in the “Live Viewer 3” in your PC. After that, you just select the profile data on the “Live Viewer 3” to connect the projector to your network.

3) Connection by the history record for the network

Once you connect the projector to your network with the “Live Viewer 3”, the “Live Viewer 3” stores the history. You just select a history record to connect the projector to your network.

1.3 Configuring and controlling via a web browser

You can adjust or control the projector via a network from a web browser on a PC that is connected to the same network.
Logon the network from the web browser and it offers the menus to configure the network settings, monitor the projector and so on. The Web Remote Control, one of the menus of web browser, allows you to control the projector like bundled remote control including operating the “Live Mode” and “PC-LESS Presentation”. (64)

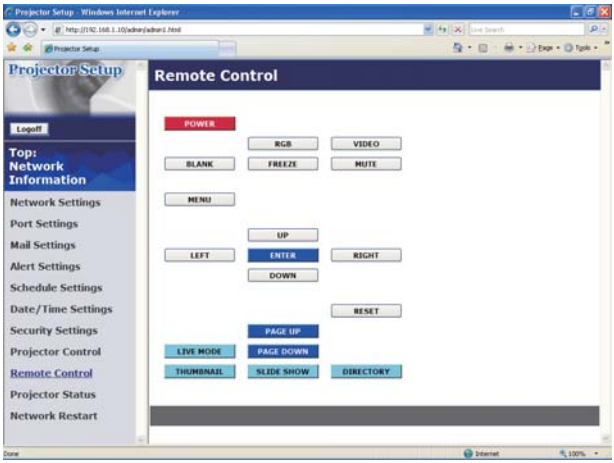


Fig. 1.3. Web Remote Control

1.4 PC-LESS Presentation (Display the images stored in SD memory card/USB memory.)

The MIU enables “PC-LESS Presentation” by choosing PC-LESS function. (Fig. 1.4)
The PC-LESS function enables to display images that are stored in a storage media like SD memory card or USB memory. The “PC-LESS Presentation” has 4 types of display modes.

1) Thumbnail Mode: Display thumbnails of stored images in the storage media. (After this, “the storage media” is the general term for both of SD memory card and USB memory.)
2) Full Screen Mode: Display selected image or movie on the full screen mode.
3) Slide Show Mode: Display images in the Slide show mode with certain interval.
4) Directory Tree View: Display files and folders that are stored in the storage media as directory tree view.

[Supported storage media]

- SD memory card
- USB memory (USB memory type, USB hard disk and USB card reader type)

NOTE • USB memory reader (adapter) is not supported (if the adapter acknowledges as multiple devices connected).
• The supported formats are FAT 12, FAT 16(FAT) and FAT 32.
NTFS is not supported.
• USB hub is not supported.

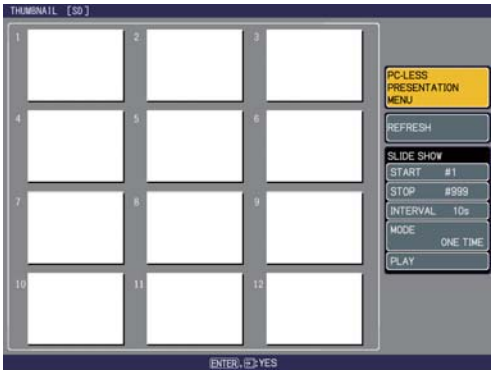


Fig. 1.4 “PC-LESS Presentation” outlines

“PC-LESS Presentation” can be controlled via keypad on the projector or remote control (📖102).

1.4 PC-LESS Presentation
(Display the images stored in SD memory card/USB memory.) (continued)

NOTE • There are several naming limitations for the folders and files.
(1) Alphanumeric and Japanese characters are supported if the language setting is Japanese.
(2) Alphanumeric and Latin-1 characters are supported if the language setting is NOT Japanese.
• The files may not be able to access depending on the type of USB hard disk, USB memory and USB card reader.
• It is recommended to use external power supply cable if the USB hard disk drive has the power cable.

2. Equipment connection and network setting

2.1 Required equipment preparation

The following equipments are required to connect the projector to your PC through the network.

■ **Common** The projector: 1 unit, PC : 1 set ***1***
It is recommended to install the “Live Viewer 3” into the PC.

■ **Depending on how you want to connect**

1) For the wired connection
LAN cable (CAT-5 or greater): 1 piece

2) For the wireless connection ***2***
- Projector side
The Wireless Network Card (option : VA0833x ***4***) : 1 unit
- PC side
IEEE802.11b/g wireless LAN equipment: 1 unit ***3***

1: For the PC, please refer to the item 3.2.1 Minimum PC hardware and software requirement. (📖***23***)
2: An access point is required when the wireless LAN connection is used as Infrastructure mode.
3: Depending on the type of wireless network device and PC you are using, the projector may not be able to communicate properly with your PC, even if the PC you are using is equipped with built-in wireless LAN function.
To eliminate communication problems, please use a Wi-Fi certified wireless network device.
4: For more information, please consult your dealer.

2.2 Quick connection

The “Live Viewer 3” supports very quick and simple connection to the network. It is strongly recommended to install the “Live Viewer 3” into your PC to enjoy the feature. Proceed to the installation of the “Live Viewer 3” (📖***23***) and the connection. (📖***26***)

In case you don’t want to use the “Live Viewer 3” or you cannot use it by some reason, proceed to the manual setting, the item 2.3 for the wired LAN (📖***11***) and the item 2.4 for the wireless LAN. (📖***16***)

2.3 Manual network connection setting - Wired LAN -

If you don't use the "Live Viewer 3", you need to set up your network connection manually.
This section explains how to set it up manually.

2.3.1 Equipments connection

Connect the projector and PC with a LAN cable.
* Before connecting with an existing network, contact the network administrator.

Next, please check the PC setting as explained below.

2.3.2 Network settings

This is the explanation of network connection settings for Windows XP and Internet Explorer.
1) Log on to Windows XP as administrator authority. (*)
2) Open "Control Panel" from "Start" menu.
3) Open "Network and Internet Connections" in "Control Panel". (Fig. 2.3.2.a)
* Administrator authority is the account, which can access to all functions.

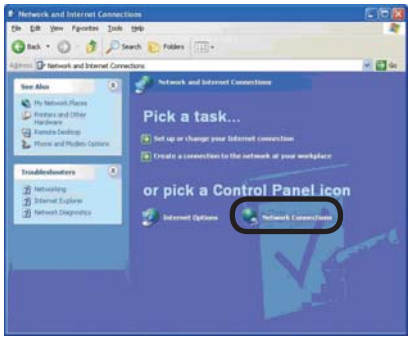


Fig. 2.3.2.a "Network and Internet Connections" window

4) Open "Network Connections". (Fig.2.3.2.b)

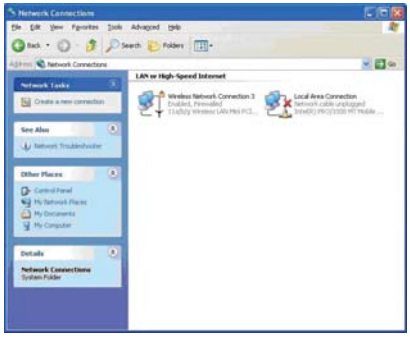


Fig. 2.3.2.b "Network Connections" window

2.3 Manual network connection setting - Wired LAN - (continued)

5) Open “Local Area Connection Properties” window you use for network device. (Fig. 2.3.2.c)

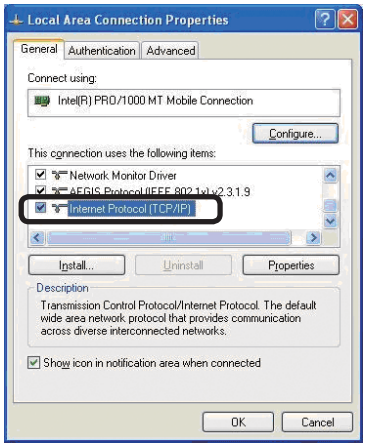


Fig. 2.3.2.c “Local Area Connection Properties” window

6) Set used protocol as “TCP/IP” and open “Internet Protocol (TCP/IP) Properties” window.

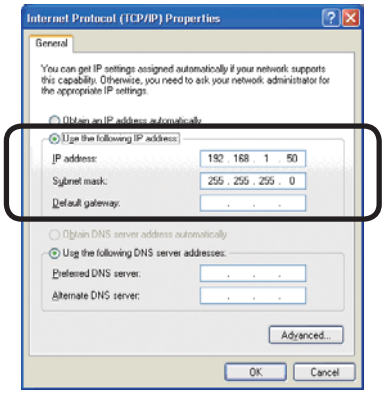

Internet Protocol (TCP/IP) Properties
General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Use the following IP address:
IP address:
192 . 168 . 1 . 50
Subnet mask:
255 . 255 . 255 . 0
Default gateway:
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Advanced...
OK
Cancel

Fig. 2.3.2.d “Internet Protocol (TCP/IP) Properties” window

7) Set IP address, subnet mask and default gateway for PC.

2.3 Manual network connection setting - Wired LAN - (continued)

[About IP address]

■ Setting manually

The Network address portion included in the IP address set into your PC should be common with projector's one. And the entire IP address in the PC should not be overlapped with other equipments in the same network, including the projector.

For example

The projector's initial settings are as follows.

IP address: 192.168.1.10
Subnet mask: 255.255.255.0
(Network address: 192.168.1 in this case)

Therefore, specify PC's IP address as follows.

IP address: 192.168.1.xxx (xxx shows decimal number.)
Subnet mask: 255.255.255.0
(Network address: 192.168.1 in this case)

Select from 1 to 254 for "xxx" not duplicating with any other equipments. In this case, projector has "192.168.1.10" IP address, specify from 1 to 254 except 10 for PC.

NOTE • "0.0.0.0" cannot be set to the IP address.
• The projector's IP address can be changed by using the configuration utility via a web browser. (📖*65*)
• If the projector and PC exist in the same network (i.e. network address is common), default gateway can be blank.
• When the projector and PC exist in different networks, default gateway setting is necessary. Contact the network administrator in detail.

■ Setting automatically

When DHCP server exists in network, it is possible to assign IP address to the projector and PC automatically.

* DHCP is abbreviation for "Dynamic Host Configuration Protocol" and has the function to provide necessary setting for network like IP address from server to client. A server that has DHCP function is called DHCP server.

2.3 Manual network connection setting - Wired LAN - (continued)

2.3.3 “Internet Option” setting

1) Click “Internet Options” in “Network and Internet Connections” window (Fig. 2.3.3.a) to open “Internet Properties” window. (Fig.2.3.3.b)

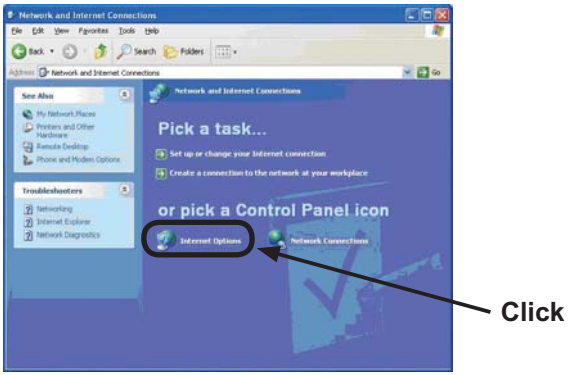


Fig. 2.3.3.a “Network and Internet Connections” window

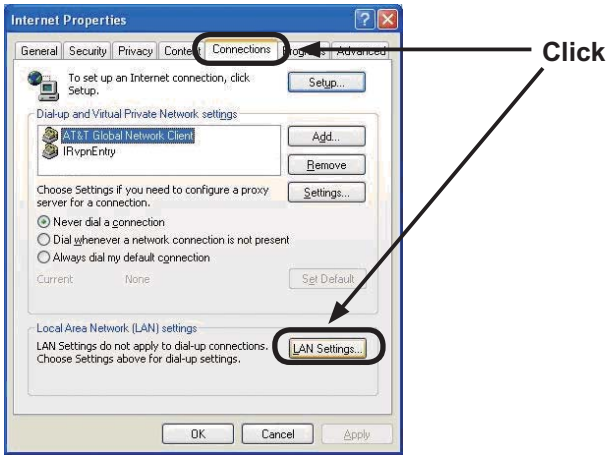


Fig. 2.3.3.b “Internet Properties” window

2) Click “Connections” tab and then click [LAN Settings] button to open “Local Area Network (LAN) settings”. (Fig. 2.3.3.c)

2.3 Manual network connection setting - Wired LAN - (continued)

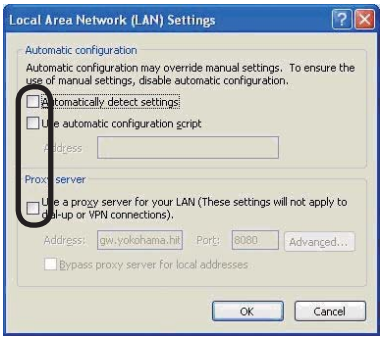

Local Area Network (LAN) Settings
Automatic configuration
Automatic configuration may override manual settings. To ensure the use of manual settings, disable automatic configuration.
Automatically detect settings
Use automatic configuration script
Address
Proxy server
Use a proxy server for your LAN (These settings will not apply to dial-up or VPN connections).
Address: gw.yokohama.hit Port: 8080 Advanced...
Bypass proxy server for local addresses
OK
Cancel

Fig. 2.3.3.c “Local Area Network (LAN) Settings” window

3) Uncheck all boxes in “Local Area Network (LAN) Settings” window. (Fig. 2.3.3.c)

2.3.4 Check connection

Check PC and projector are connected properly here. If it is not connected, check cable connections and settings are properly or not.

1) Start browser in PC and specify following URL, then click “→” button.

URL: http:///(Projector IP address)/

For example, if projector IP address is 192.168.1.10, specify

URL: http://192.168.1.10/

2) If Fig. 2.3.4 appears, it succeeds.

Fig. 2.3.4 “Logon menu”

2.4 Manual network connection setting –Wireless LAN

The projector and PC can communicate in both of Ad-Hoc and Infrastructure modes, using the designated wireless network card (option) on the projector. This section is intended to explain how to set up wireless LAN connection manually.

2.4.1 Preparation for wireless LAN connection

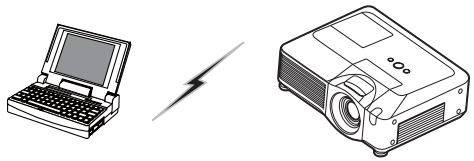


Fig. 2.4.1.a Without an access point communication (Ad-Hoc)

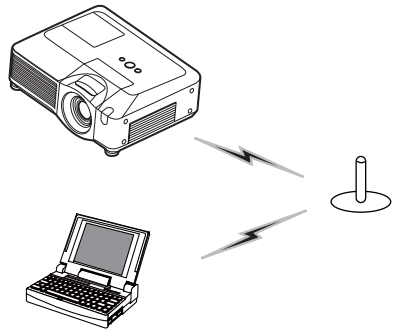


Fig. 2.4.1.b With an access point communication (Infrastructure)

* Ad-Hoc is one of the wireless LAN communication methods without having access point to communicate.
* Infrastructure is one of the wireless LAN communication methods with having access point to communicate. If certain quantities of equipments are used, this mode is efficient.
  If communicating with existing network, contact your network administrator.

First, insert the wireless network card into SD card slot (🕮 ***Using an SD card of the User's Manual (concise)***).
Then, make PC ready for wireless communication.
In case IEEE802.11b/g wireless LAN device is built-in the PC, make it valid and make other network connections invalid. If wireless LAN device is not built-in the PC, connect IEEE802.11b/g wireless LAN device and install device driver. (Refer to the user guide for PC and wireless LAN device for detail.)

2.4 Manual network connection setting –Wireless LAN (continued)

2.4.2 Wireless LAN connection set up

Using wireless LAN utility for Windows XP standard.
Wireless LAN initial settings for the projector is as follows.

Connection Control	: Ad-Hoc
SSID	: wireless
Channel	: 1ch
Encryption rating	: None
Communication speed	: AUTO
IP address	: 192.168.1.10

* You can change these settings as you want via a web browser on your PC or the menu on the projector. Refer to the item **4.1.3 Network Settings** (📖*69*) or 📖 ***MIU menu in the User's Manual (detailed) – Operating Guide***.

1) Open ”Network Connections”. (Fig. 2.4.2.a)

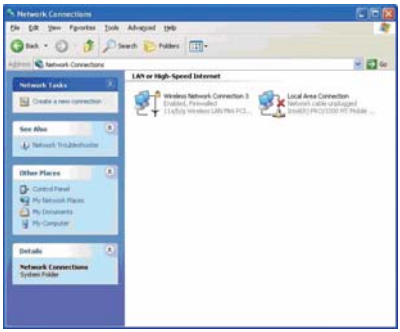


Fig. 2.4.2.a “Network Connections”

2) Open “Wireless Network Connection Properties”. (Fig. 2.4.2.b)

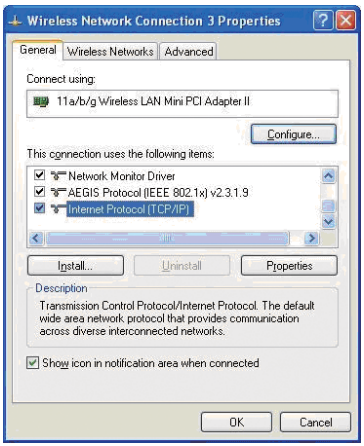


Fig. 2.4.2.b “Wireless Network Connection Properties” window (1)

2.4 Manual network connection setting –Wireless LAN (continued)

3) Set used protocol as “TCP/IP” and open TCP/IP property. Set IP address and other settings as same as wired LAN connection set up. (*12*)
4) Open “Wireless Networks” tab. (Fig. 2.4.2.c)

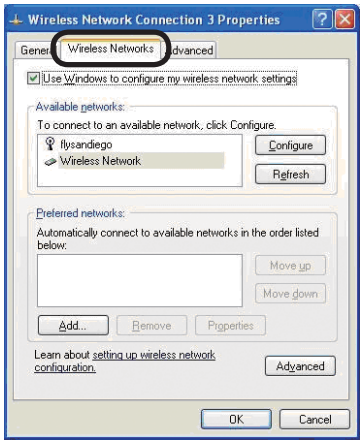


Fig. 2.4.2.c “Wireless Network Connection Properties” window (2)

5) Add check mark for “Use Windows to configure my wireless network settings” in “Wireless Network Connection Properties” window.
6) Click **[Add]** button in “Preferred networks” section in “Wireless Network Connection Properties” window (Fig. 2.4.2.c) to open “Wireless network properties” window. (Fig. 2.4.2.d)

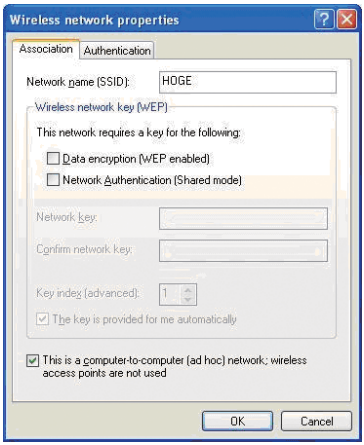


Fig. 2.4.2.d “Wireless network properties” window

2.4 Manual network connection setting –Wireless LAN (continued)

7) Set each item as follows.
Network name (SSID): wireless
Data encryption: not enabled (Default setting is not enabled.)

NOTE • If the default setting in the projector is used, set the data as above into your PC. If an access point is used or any encryption mode is used, it is required to set the data that is matched to your system.
Refer to the manuals for your PC or wireless LAN adapter or access point.
• If you want to use the existing network via an access point, contact your network administrator before the connection.

3. Using the Live Mode

The section is intended to explain the process to use the projector in the Live Mode.
The outline of the process is as follows.

1) Install “Live Viewer 3” (23)

2) Quick Connection to the network (26)

The Quick Connection feature prepares some options to connect your network. You can select one that meets your requirement.

- Passcode connection
- Profile data connection
- History record connection
- My Connection
- Manual connection

3) Confirm the connection to your destination (50)

In some case, there are several projectors connected to the same network. Before you send your image, confirm that the right projector is selected.

4) Start the “Live Viewer 3” (54)

The “Live Viewer 3” main menu will be on screen.
Now, you can send your images to the projector through the network.

Fig. 3 “Live Viewer 3” Main menu

3.1 Outline of the Live Mode

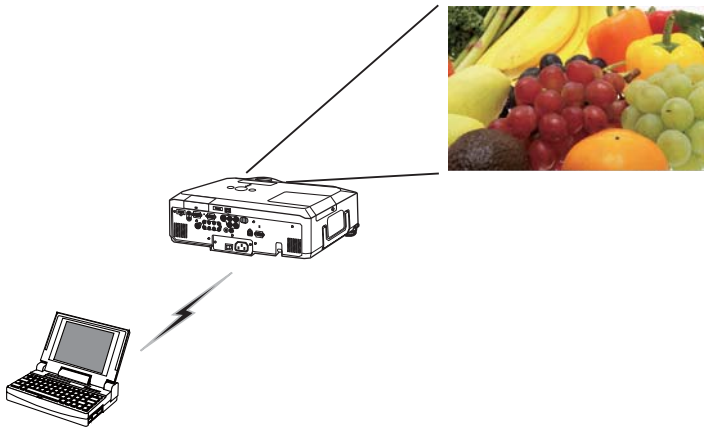
The Live Mode can display PC's image on screen in real time through either wired or wireless LAN. So, no signal cable connection is required.

3.1.1 Display mode

In the Live Mode, there are two display modes, Single PC mode and Multi PC mode.

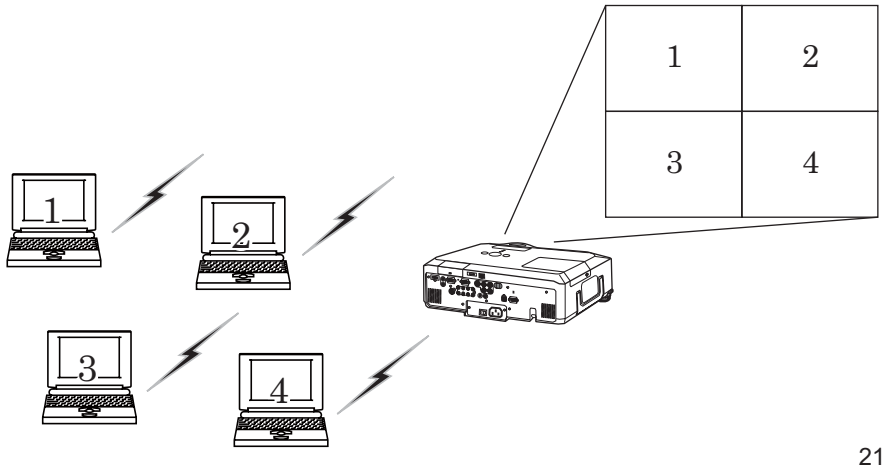
1) Single PC mode

The projector displays images sent by one PC.



2) Multi PC mode

The projector screen is divided to 4 zones. The projector displays images in one zone sent by a PC, so that the projector can displays images sent by up to 4 PCs at the same time.



3.1 Outline of the Live Mode (continued)

3.1.2 Presenter mode

In the Single PC mode, the projector can be occupied by one PC and can block an access from any other PC, if the Presenter mode is selected in the “Live Viewer 3”.
While making your presentation, you don’t need to worry that the image on screen is unexpectedly switched to an image sent by another PC.
The Presenter mode can be set on the Option menu in the “Live Viewer 3” main menu. (📖58)

3.1.3 Display User Name

A "User Name" can be input in the “Live Viewer 3”, which is displayed on screen by operating the menu on the projector. So, it can be found out whose image is currently displayed on screen. (📖58)

3.2 Install “Live Viewer 3”

In order to use the Live Mode and Quick connection, you need to install the enclosed software, the “Live Viewer 3”, into all PCs that you want to connect to the projector through the network.

3.2.1 Minimum PC hardware and software requirement

• OS:	Windows 2000 Professional (Service Pack4) Windows XP Home Edition Windows XP Professional Windows Vista Home Basic (32bit) Windows Vista Home Premium (32bit) Windows Vista Business (32bit) Windows Vista Enterprise (32bit) Windows Vista Ultimate (32bit)
• Graphic Interface:	Video RAM 4MB or higher (8MB recommended)
• CPU:	Pentium III (600MHz or higher recommended)
• Display:	VGA 640x480 or higher (XGA 1024x768 recommended) 65,536 simultaneous colors or higher

NOTE • For Windows VISTA, use the latest “Live Viewer 3”. Please get the latest version at Hitachi WEB site (http://hitachi.us/digitalmedia or http://www.hitachidigitalmedia.com).
Since some functions maybe limited, please see the instruction manual that is supplied with the latest “Live Viewer 3”.
• Set your PC’s resolution to XGA or less. Refer to the user manual for your PC or Windows.
• In some cases, your PC’s screen will not be displayed correctly by the projector. If the resolution is larger than 1024x768, the projector can display only the 1024x768 portion of the image.
• Images might not been transmitted, caused by OS version or the driver software for Network Adapter on your PCs. It is highly recommended that OS and the driver should be updated to the latest.

• Memory:	64MB or higher (128MB or higher if using Windows XP)
• Available Hard Disk Space:	20MB or higher
• Web browser:	Internet Explorer® (5.5 or higher)
• CD-ROM drive	
• Wireless:	IEEE802.11b/g

NOTE • Depending on the type of wireless network device and PC you are using, the projector may not be able to communicate properly with your PC, even if the PC you are using is equipped with built-in wireless LAN functionality. If the communication problems occur, please use a Wi-Fi certified wireless network device.

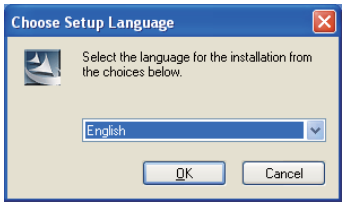
3.2 Install "Live Viewer 3" (continued)

3.2.2 Software Installation Procedure

1) Turn on the PC.
2) Shut down all applications.
3) Insert the accompanying CD-ROM into the PC's CD-ROM drive.

NOTE • After sequence 3, the User Account Control (UAC) dialog will appear (if you are using Windows Vista). Please click [Allow] to continue installation.

4) After a moment, the Choose Setup Language dialog will appear as shown on the right. Select what you like to use in the list, and click **[OK]**.

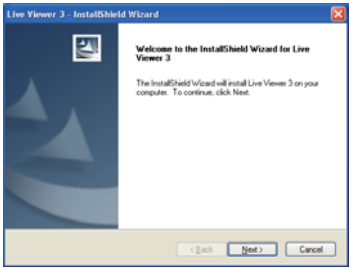


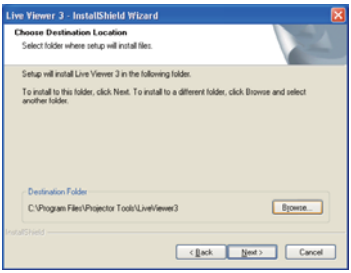
NOTE • If the Welcome dialog doesn't appear, proceed as follows:
(1) Click on the [Start] button on the toolbar and select the "Run".
(2) Enter E:\software\setup.exe and then press **[OK]**.

If your CD-ROM drive is not drive E on your PC, you will need to replace E with the correct drive letter assigned to your CD-ROM drive.

If the software has been already installed, Uninstallation will be done. Click **[Cancel]** button, then uninstallation will be canceled. If you uninstalled the software by miss-operation, please re-install the software from first procedure.

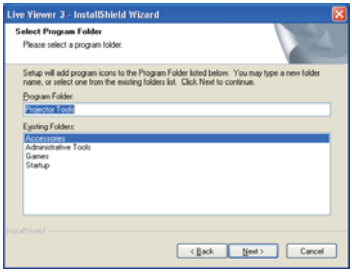
5) After a moment, the Welcome dialog will appear as shown on the right. Press **[Next]**.
6) The License Agreement dialog appears. If you accept it, select "I accept the terms of the license agreement" and press **[Next]**.
7) The Choose Destination Location dialog appears. Press **[Next]**.


Live Viewer 3 - InstallShield Wizard
Welcome to the InstallShield Wizard for Live Viewer 3
The InstallShield Wizard will install Live Viewer 3 on your computer. To continue, click Next.
< Back
Next >
Cancel


Live Viewer 3 - InstallShield Wizard
Choose Destination Location
Select folder where setup will install files.
Setup will install Live Viewer 3 in the following folder.
To install to this folder, click Next. To install to a different folder, click Browse and select another folder.
Destination Folder
C:\Program Files\Projector Tools\LiveViewer3
Browse...
InstallShield
< Back
Next >
Cancel

NOTE • The C:\Program Files\Projector Tools\LiveViewer3 folder will be created and the program will be installed into that folder. If you wish to install to a different folder, click **[Browse]** and select another folder.

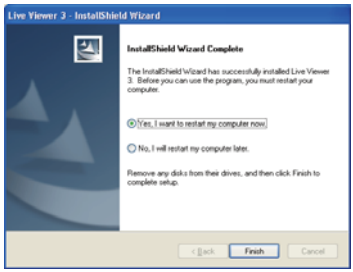
3.2 Install "Live Viewer 3" (continued)


Live Viewer 3 - InstallShield Wizard
Select Program Folder
Please select a program folder.
Setup will add program icons to the Program Folder listed below. You may type a new folder name, or select one from the existing folders list. Click Next to continue.
Program Folder:
Projector Tools
Existing Folders:
Accessories
Administrative Tools
Games
Startup
InstallShield
< Back
Next >
Cancel

8) Confirm the program folder name. If "Projector Tools" is okay, press **[Next]** to continue. If not, enter the desired folder name and then press **[Next]**.
9) The Hardware Installation dialog appears. Press Continue Anyway.

NOTE • After sequence 8, the Windows Security dialog will appear if you are using Windows Vista. Please click the [Install this driver software anyway] and continue installation.

10) After a moment, installation will complete and the Setup Complete dialog will appear as shown on the right. Click **[Finish]**. This completes the software installation. Then your PC automatically restarts.
    (1) To confirm that the software has been properly installed, press **[Start]** button on the toolbar, select All Programs and then select the Projector Tools folder.
    (2) The "LiveViewer3" will appear in that folder if the installation was successful.


Live Viewer 3 - InstallShield Wizard
InstallShield Wizard Complete
The InstallShield Wizard has successfully installed Live Viewer 3. Before you can use the program, you must restart your computer.
Yes, I want to restart my computer now.
No, I will restart my computer later.
Remove any disks from their drives, and then click Finish to complete setup.
< Back
Finish
Cancel

3.2.3 Version of the "Live Viewer " software

To use the Live Mode, it is required to install the software, the "Live Viewer", into the PC that is going to be connected to the projector through the network.
The right software version is depended on the models that you have. If the version is not matched with the projector, the software will not work properly.

Live Viewer Version	Models			
	CP-X267	CP-X268A CP-X608	CPX2	CP-X308 CP-X417 CP-X807 CP-X809W
2.01	○	×	×	×
2.1x	×	○	○	×
2.20	×	○	○	×
3.xx	×	○	○	○

• "x" in the version means 0 or greater.

Please check and get the latest version at Hitachi Web site.
http://hitachi.us/digitalmedia or http://www.hitachidigitalmedia.com

3.3 Quick connection to the network

The Live Mode prepares some options for the network connection. You can choose one that meets to your system.
The explanation here is based on the case that Windows XP is installed in your PC.

3.3.1 Starting the “Live Viewer 3”

Start the “Live Viewer 3” in your PC, taking one of the followings.

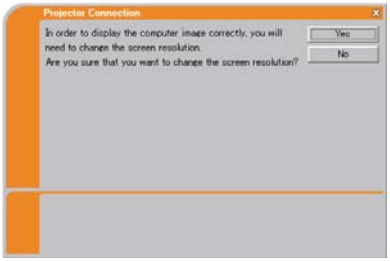
1) Double click the “Live Viewer 3” icon on the Desktop in your PC
2) Select “Start” → “All Programs” → “Projector Tools” → “Live Viewer 3” on Windows XP menu.

Then, proceed to the item **3.3.2 Selecting the connection mode**. (📖27)

[trouble shooting]

■ In order to display the computer image correctly, you will need to change the screen resolution.
If the resolution on your PC is set higher than XGA (1024x768), the screen is displayed.

To change the resolution, click **[Yes]**.
Not to change the resolution, click **[No]**.


Projector Connection
In order to display the computer image correctly, you will need to change the screen resolution.
Are you sure that you want to change the screen resolution?
Yes
No

If you click **[Yes]**, the resolution on your PC is switched to XGA (1024x768).

If you click **[No]**, the resolution is not changed.

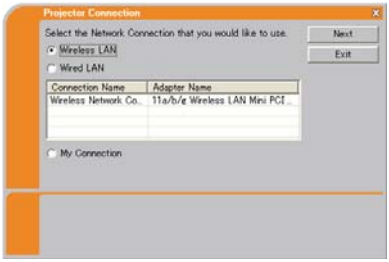
NOTE • When the resolution is changed, the arrangement of icons on PC Desktop screen may be changed.
• Even if the resolution is changed, it will be back to the original when the “Live Viewer 3“ is closed.
• If the resolution is not changed, the projector will display XGA(1024x768) portion from top left corner of your PC screen.
• Refer to the user manual for your PC or Windows to change the resolution.

3.3 Quick connection to the network (continued)

3.3.2 Selecting the network connection mode

After starting the “Live Viewer 3”, the “Select the Network Connection” screen comes up. Select the network connection that you would like to use. There are 3 options in the menu.

- Wireless LAN
- Wired LAN
- My Connection

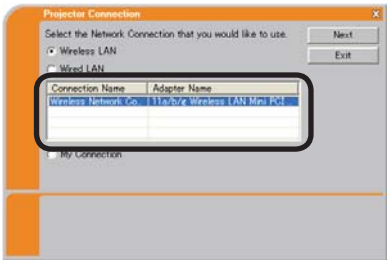


If you select either the wireless LAN or wired LAN, proceed to the **Selecting either the wireless LAN or wired LAN** (📖*below*).
If you select the My Connection, jump to the **Selecting the My Connection**. (📖*29*)

Selecting either the wireless LAN or wired LAN

If you select either the wireless LAN or wired LAN, a list of the network adapters in your PC is shown in the menu.

Select what you like to use in the list, and click **[Next]**.
Then, proceed to the item **3.3.3 Connecting to the network**. (📖*31*)



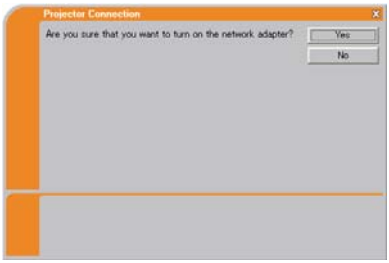
NOTE • If you select the wireless LAN, the wireless LAN adapters in your PC are shown in the list.
• If the wired LAN is selected, the wired LAN adapters in your PC are shown.

[trouble shooting]

■ Are you sure that you want to turn on the network adapter?

The screen is displayed in the case that the selected network adapter is invalid.

- To turn it on, click **[Yes]**, and then proceed to the item **3.3.3** (📖*31*).
- Not to turn it on, click **[No]**, and then the screen is back to the previous one to select another network adapter. If no more adapter in your PC, the “Live Viewer 3” will be closed.

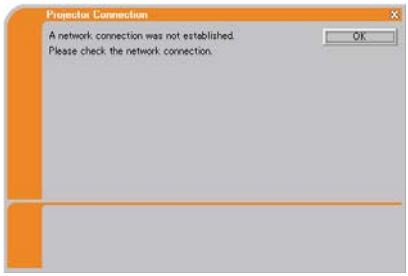


3.3 Quick connection to the network (continued)

■ A network connection was not established.

The screen is displayed in the case that the projector is not connected with a LAN cable to your PC when the wired LAN is selected.

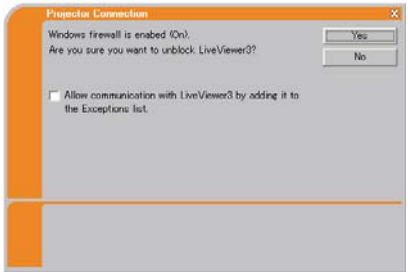
Be sure that the projector is connected with a LAN cable to your PC.



Click **[OK]**, then the screen is back to the previous one to select the network connection mode.

■ Windows firewall is enabled(On).

The screen is displayed in the case that the firewall setting in Windows XP/Vista is activated, and the “Live Viewer 3“ is blocked by the firewall.


Projector Connection
Windows firewall is enabed (On).
Are you sure you want to unblock LiveViewer3?
Yes
No
Allow communication with LiveViewer3 by adding it to the Exceptions list.

- To turn it disabled(Off), click **[Yes]**.
- Not to turn it disabled(Off), click **[No]**, but the projector may not be able to communicate with your PC through the network.

- If you put a check mark in the **[Allow communication with LiveView3 by adding it to the Exceptions list]** box, the “Live Viewer 3” will never be blocked by Windows firewall.

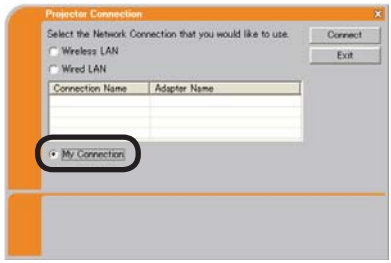
Proceed to the item **3.3.3 Connecting to the network**. (🕮*31*)

NOTE • If you click **[Yes]**, the network access by the “Live Viewer 3” is temporally permitted by Windows firewall, until the “Live Viewer 3” is closed.
• If any application software having the firewall function is installed into you PC, make the firewall function invalid with following the user’s manual.

3.3 Quick connection to the network (continued)

Selecting the My Connection

Select **[My Connection]** and click **[Connect]**.



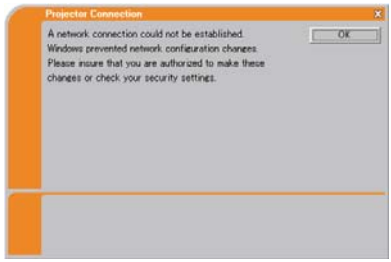
If you select the My Connection, the PC is connected to the projector through the network by using the profile data that is pre-assigned to My Connection. (62)
When you select the My Connection, the PC immediately starts the connection to the projector.

Proceed to the item **3.6 Confirm the connection to your destination**. (50)

NOTE • If the DHCP is set on in the projector, the network connection between the projector and PC may not be established since IP address may be varied. If you like to use the My Connection, set the DHCP off in the projector.
• If no profile data is assigned to the My Connection, it can't be used.

[trouble shooting]

■ A network connection could not be established.


Projector Connection
A network connection could not be established.
Windows prevented network configuration changes.
Please insure that you are authorized to make these changes or check your security settings.
OK

Windows prevented network configuration changes.

You may log in the Windows under User authority.

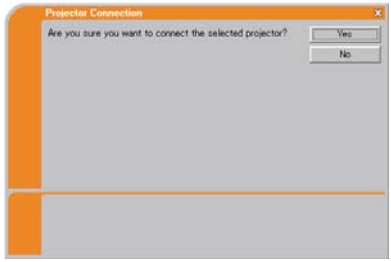
Click **[OK]** to return to the screen to select the network connection mode. (27)

Consult to the network administrator and log in again under the Administrator authority. After that, please resume at the item **3.3.1 Starting the "Live Viewer 3"**. (26)

3.3 Quick connection to the network (continued)

■ Are you sure you want to connect the selected projector?

The message is appeared when the wireless adapter you selected is already used for another network connection.



- To connect, click **[Yes]**. Proceed to the **3.6 Confirm the connection to your destination**. (📖*50*)
- Not to connect, click **[No]** to return to the screen to select the network connection mode. (📖**27**)

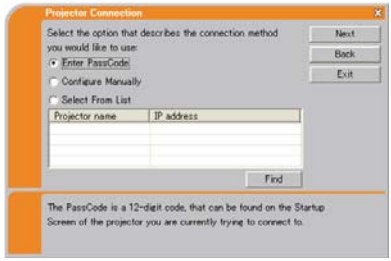
3.3 Quick connection to the network (continued)

3.3.3 Connecting to the network

There are some options to connect to the network.

- Enter PassCode
- Configure Manually
- Select From List

Select one of them to meet your requirement.


Projector Connection
Select the option that describes the connection method you would like to use:
Enter PassCode
Configure Manually
Select From List
Projector name
IP address
Next
Back
Exit
Find
The PassCode is a 12-digit code, that can be found on the Startup Screen of the projector you are currently trying to connect to.

Enter PassCode
If you want to use the Passcode for network connection, select **[Enter PassCode]** and click **[Next]**.

The Passcode is given by the projector on screen. And you simply input the Passcode to the “Live Viewer 3” to connect the network.
Proceed to the **3.4 Passcode connection**. (📖*32*)

Configure Manually
Select **[Configure Manually]** and click **[Next]**.
Then, there are 3 options on the manual connection method.

- **Profile** Proceed to the **3.5.1 Profile connection** (📖*41*)
  You just select one of the stored profile data to connect the network.

- **History** Proceed to the item **3.5.2 History connection** (📖*42*)
  Once connecting to the network, the “Live Viewer 3” stores the history.
  If you need the same connection again, select **[History]**.
  Then, all you need to do is to select one of the history data from the list.

- **Configure Network Settings Manually** Proceed to the item **3.5.3 Configuring manually** (📖*43*)
  If you need to make the setting manually, select **[Configure Network Settings Manually]**.

Select From List
Before selecting this item, your PC and the projectors need to be connected to the same network.
If the connection is already established, select **[Select From List]**.
From the list of the projectors connected to the network, select which projector you would like to send your images. Proceed to the **3.6 Confirm the connection to your destination**. (📖*50*)

3.4 Passcode connection

The unique Passcode system brings you very quick and simple connection to the network.
The Passcode is a code that expresses the network setting in the projector. If you input the code in the “Live Viewer 3” in your PC, the network setting in the projector and PC can be matched and the connection will be established immediately.
The section is intended to explain how to use the Passcode.

3.4.1 Getting the Passcode

The Passcode is 12-digit code consisting of alphanumeric characters (“1-9” and “A-Z”).
Example: PASSCODE 1234-5678-9ABC
The Passcode is given on the projector screen.

NOTE • The Passcode system does not work under the condition below. If your system meets one of them, set the connection manually.
1) Any encryption code is used.
The Passcode system does not work with an encryption code.
2) Unique SSID is used.
The Passcode system accepts the factory default SSID only.
Factory default SSID 1 : wireless
Factory default SSID 2 : WLANProjector1
Factory default SSID 3 : WLANProjector2
Factory default SSID 4 : WLANProjector3
3) Subnet mask is not Class A or B or C.
The Passcode system accepts Class A, B and C only.
Class A:(255.0.0.0), ClassB:(255.255.0.0), Class C:(255.255.255.0)

There are two methods to get the Passcode from the projector

Method 1

1) Turn on the projector, and make sure that the projector image is on screen.
2) Press the RGB button on the remote control or INPUT button on the projector to select the MIU as input port.
If there is no signal on the MIU port you can find the Passcode on screen, otherwise proceed to 3) below.
3) Press the MENU button on the remote control or the ▲/▼/◄/► buttons on the projector to show the menu on screen.
4) Use the ▲/▼ cursor buttons to select the Advanced Menu, and use the ► cursor button to enter the item.
5) Use the ▲/▼ cursor buttons to select the MIU, and use the ► cursor button to enter the item.
6) Use the ▲/▼ cursor buttons to select the LIVE MODE, and push the ► cursor button.
7) The Passcode is appeared on the screen.

3.4 Passcode connection (continued)

Method 2

1) Turn on the projector, and make sure that the projector image is on screen.
2) Press the MENU button on the remote control or the ▲/▼/◄/► buttons on the projector to show the menu on screen.
3) Use the ▲/▼ cursor buttons to select the Advanced Menu, and use the ► cursor button to enter the item.
4) Use the ▲/▼ cursor buttons to select the MIU, and use the ► cursor button to enter the item.
5) Use the ▲/▼ cursor buttons to select the INFORMATION, and use the ► cursor button to display the INFORMATION.
6) The Passcode is appeared at the top right corner in the INFORMATION window.

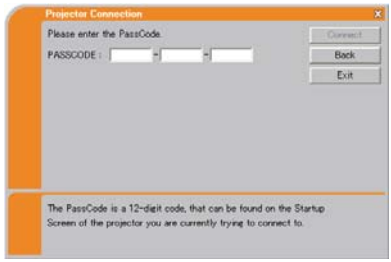
NOTE • Take the Method 2 , when you use the projector in the LIVE MODE or PC-LESS Presentation mode, or when the MIU is not selected as the input signal.
• If no communication between the projector and PC in 5 minutes, the Passcode will be changed.

3.4 Passcode connection (continued)

3.4.2 Entering the Passcode

If you select **[Enter PassCode]** at the item 3.3.3, the “Please enter the PassCode” screen is displayed. Please enter the Passcode divided 4-digit each in 3 boxes (total 12-digit).

Example PASSCODE: 1234 - 5678 - 9ABC


Projector Connection
Please enter the PassCode.
PASSCODE :
Connect
Back
Exit
The PassCode is a 12-digit code, that can be found on the Startup Screen of the projector you are currently trying to connect to.

After entering the Passcode, click **[Connect]** to start the connection to the projector.

Proceed to the item **3.6 Confirm the connection to your destination**. (📖*50*)

If you click **[Back]**, the screen is back to the item **3.3.3 Connecting to the network**. (📖*31*)

NOTE • When entering the Passcode, capital and small letters are not distinguished.
• If you are using any encryption code or your unique SSID or Subnet mask excluding ClassA and B and C, it is required to set the connection manually. If the manual setting screen is displayed, please follow the item **3.4.3**.

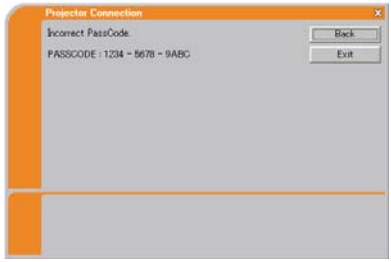
[trouble shooting]

■ Incorrect PassCode.

The incorrect Passcode was input.

Click **[Back]** to return to the “Please enter the PassCode” screen.

Check the PassCode on the projector screen (📖*32*) and enter the code again.



3.4 Passcode connection (continued)

■ A network connection could not be established.

Windows prevented network configuration changes.

Projector Connection
A network connection could not be established.
Windows prevented network configuration changes.
Please insure that you are authorized to make these changes or check your security settings.
OK

You may log in the Windows under User authority.

Click **[OK]**, then the “Live Viewer 3” main menu is displayed even though the network is not established. Click on the main and go back to the item **3.3.3 Connecting to the network**. (*31*)

Consult to the network administrator. Log in the Windows under Administrator authority. After that, please resume at the item **3.3.1 Starting the “Live Viewer 3”**. (*26*)

■ Automatic connection failed.

The reason is that the IP address set in the projector is the global address.

Projector Connection
Automatic connection failed (a Global IP Address is being used for the Projector you want to connect to).
Please enter a Static IP Address / Subnet Mask.
Contact your Network Administrator as needed.
Connect
Back
Exit
IP address :
Subnet mask :
Reset
Save IP Address Settings

Following the instruction by the network administrator, set the IP address and Subnet mask in the “Live Viewer 3”.

After input these address, click **[Connect]**.

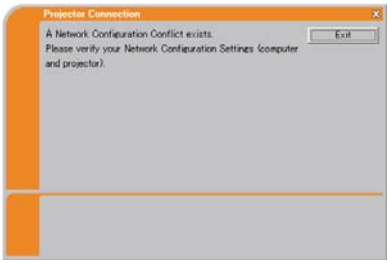
If you want to erase the information you input, click **[Reset]**.

NOTE • If the IP address you input to the PC is the same as the one set in the projector, a warning message will come up. Please choose an IP address that is currently not in use.

3.4 Passcode connection (continued)

■ A Network Configuration Conflict exists.

The message comes up when the network connection mode you set in the PC does not match with the mode of the projector.

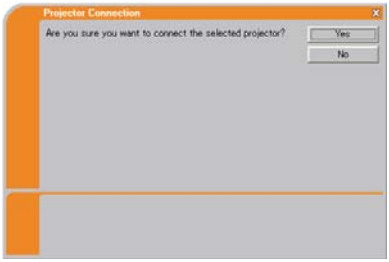

Projector Connection
A Network Configuration Conflict exists.
Please verify your Network Configuration Settings (computer and projector).
Exit

Please verify your network configuration setting on the projector and PC.

Click **[Exit]**, then the “Live Viewer 3” main menu is displayed even though the network is not established. Click on the main menu to go back to the item **3.3.3 Connecting to the network**. (*31*)

■ Are you sure you want to connect the selected projector?

The message is appeared when the wireless adapter you selected is already used for another network connection.



- To connect, click **[Yes]**. Proceed to the **3.6 Confirm the connection to your destination**. (*50*)
- Not to connect, click **[No]** then the “Live Viewer 3” main menu is displayed even though the network is not established. Click on the main menu to go back to the item **3.3.3 Connecting to the network**. (*31*)

3.4 Passcode connection (continued)

3.4.3 Configuring manually

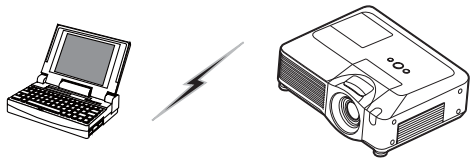
After you input the Passcode (📖*34*), you are required to input the network setting manually if you use any encryption code or your unique SSID or Subnet mask except Class A/B/C. (📖*32*)
If you use the wired LAN, go to (📖*40*).

Wireless LAN

The required information depends on how you connect the projector and PC.

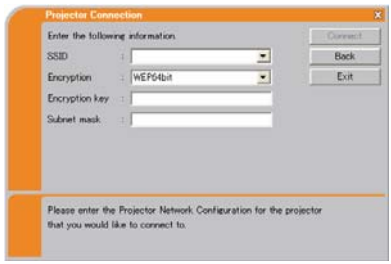
- Direct connection between the projector and PC (AdHoc mode)
- The projector connected to an access point by a LAN cable
- The projector connected to an access point by the wireless LAN

Direct connection between the projector and PC (AdHoc mode)



1) Enter the following information that is set in the projector. ***1***

SSID ***2***: wireless (example)
Encryption: WEP64bit (example)
Encryption key ***3***: ********** (example)
Subnet mask ***4***: 255.255.255.128 (example)



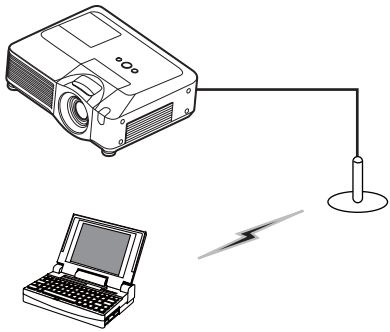
2) Click **[Connect]**.

3) The wireless connection will be established. Proceed to the item **3.6 Confirm the connection to your destination**. (📖*50*)

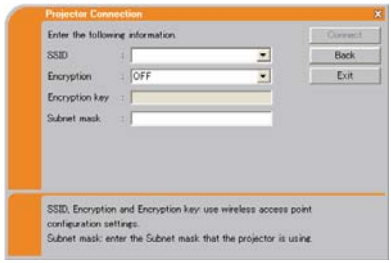
1 To find the network setting on the projector, refer to the NOTE. (📖*40*)
2 If you don't use the factory default SSID, you need to set your SSID by either entering manually or selecting from the list of detected SSID.
3 If you use an encryption, you need to set it. Contact the network administrator to find the encryption key that is set in the projector.
The encryption key is always shown as "**********".
4 If you use Subnet mask except Class A/B/C, please set it.

3.4 Passcode connection (continued)

The projector connected to an access point by a LAN cable



1) The setting on the access point. ***1***
   Enter the following information.
   SSID : WirelessAccessPoint (example)
   Encryption: WEP64bit (example)
   Encryption key ***2***: ********** (example)



2) The setting on the projector. ***3***
   Enter the following information.
   Subnet mask ***4***: 255.255.255.128 (example)

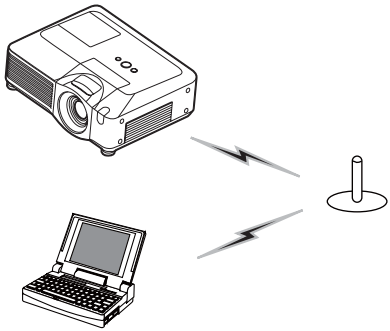
3) Click **[Connect]**.

4) The wireless connection will be established.
   Proceed to the item **3.6 Confirm the connection to your destination**. (📖*50*)

1 Contact the network administrator to find out the setting on the access point.
2 If you use an encryption, you need to set it. Contact the network administrator to check the encryption key that is set in the projector.
The encryption key is always shown as "**********".
3 To find the network setting on the projector, refer to the NOTE. (📖*40*)
4 If you use Subnet mask except Class A/B/C, please set it.

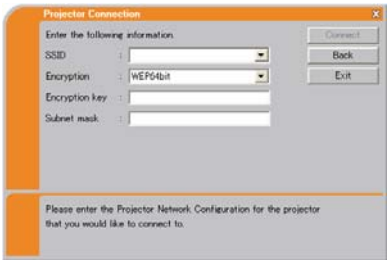
3.4 Passcode connection (continued)

The projector connected to an access point by the wireless LAN



1) Enter the following information that is set in the projector. ***1***

SSID ***2***: wireless (example)
Encryption: WEP64bit (example)
Encryption key ***3***: ********** (example)
Subnet mask ***4***: 255.255.255.128 (example)



2) Click **[Connect]**.

3) The wireless connection will be established.
Proceed to the item **3.6 Confirm the connection to your destination**. (📖50)

1 To find the network setting on the projector, refer to the NOTE. (📖40)
2 If you don't use the factory default SSID, you need to set your SSID by either entering manually or selecting from the list of detected SSID.
3 If you use an encryption, you need to set it. Contact the network administrator to find the encryption key that is set in the projector.
The encryption key is always shown as "**********".
4 If you use Subnet mask except Class A/B/C, please set it.

3.4 Passcode connection (continued)

Wired LAN

1) Enter the following information for the projector.
   Subnet mask ***1**: 255.255.255.128
   (example)

2) Click **[Connect]**.

3) The network connection will be established. Proceed to the item **3.6 Confirm the connection to your destination**. (📖*50*)

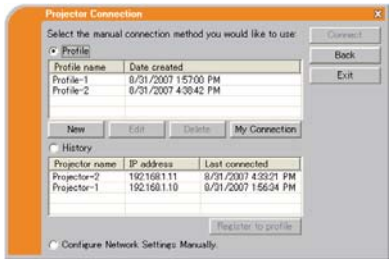
***1** In case the case you use the Subnet mask except Class A/B/C, the screen is appeared. Please set the Subnet mask.

NOTE • If you require the network setting information on the projector, take the following procedure to find it out.
1) Turn on the projector, and make sure that the projector image is on screen.
2) Press the MENU button on the remote control or the ▲/▼/◄/► buttons on the projector to show the menu on screen.
3) Use the ▲/▼ cursor buttons to select the Advanced Menu, and use the ► cursor button to enter the item.
4) Use the ▲/▼ cursor buttons to select the MIU, and use the ► cursor button to enter the item.
5) Use the ▲/▼ cursor buttons to select the INFORMATION, and push the ► cursor button.
6) The setting will be displayed in the MIU-INFORMATION-box.

3.5 Manual configuration

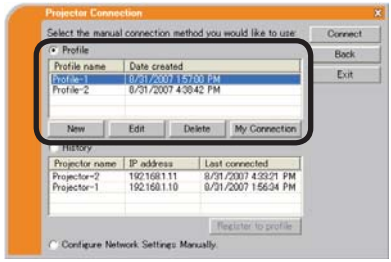
There are 3 options for the manual configuration.

- Profile (*below*)
- History (*42*)
- Configure Network Settings Manually (*43*)



3.5.1 Profile connection

Selecting a profile data connect the network with the projector.
It is required to store the profile data in advance. (*60*)



1) Select **[Profile]**.

2) Choose a profile data listed in the window.

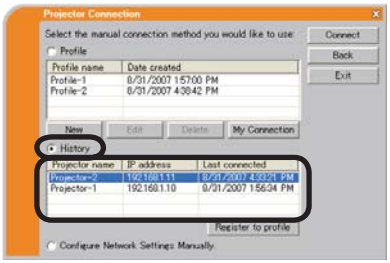
3) Click **[Connect]**.

4) The network connection will be established.
Proceed to the item **3.6 Confirm the connection to your destination**. (*50*)

NOTE • To check the setting in a profile data, follow the process below.
1) Choose a profile data that you want to check.
2) Move the mouse cursor to the profile data, and click the right button on the mouse to display a pop-up menu.
3) Select the “Property” in the pop-up menu, and click the left button on the mouse.
4) The setting information of the selected profile data is shown.
• If the DHCP is set on in the projector, the network connection between the projector and PC may not be established since IP address may be varied. If you like to use the Profile connection, set the DHCP off in the projector.

3.5 Manual configuration (continued)

3.5.2 History connection



The “Live Viewer 3” can memory the network settings when connecting to the projector as a history record. After that, selecting a history record can quickly connect the network with the projector.

1) Select **[History]**.

2) Choose a history record listed in the window.

3) Click **[Connect]**.

4) The network connection will be established.
Proceed to the item **3.6 Confirm the connection to your destination**. (📖*50*)

If you want to copy a history record to a profile data, select one of the history record and click **[Register to profile]**. The profile data cannot be erased automatically.

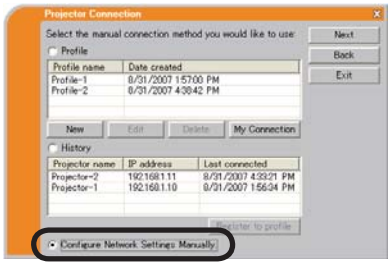
NOTE • The number of the history record is maximum 10 for each network adapter. When the 11th data is stored, the oldest record among the 10 will be overwritten.
• The data & time information in each history record is renewed when the network is connected by using the history record.
• If the DHCP is set on in the projector, the network connection between the projector and PC may not be established since IP address may be varied.
• Even if you use the profile connection, it will be memorized as a history record.

3.5 Manual configuration (continued)

3.5.3 Configuring manually

All setting for the network connection between the projector and PC is input manually.

Select **[Configure Network Settings Manually]**.



The information to be input manually is different, depending on how you want to connect the projector and PC.

Wireless LAN

The required information depends on how you connect the projector and PC.

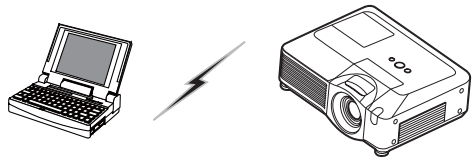
- Direct connection between the projector and PC (AdHoc mode). (📖*44*)
- The projector connected to an access point by a LAN cable. (📖*45*)
- The projector connected to an access point by the wireless LAN. (📖*46*)

Wired LAN

If you use the wired LAN, go to (📖*47*).

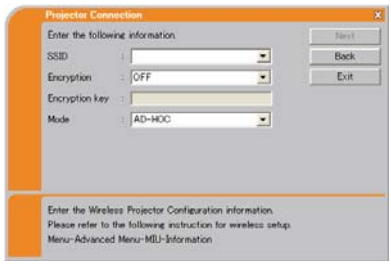
3.5 Manual configuration (continued)

Direct connection between the projector and PC (AdHoc mode)



1) Enter the following information that is set in the projector. ***1***

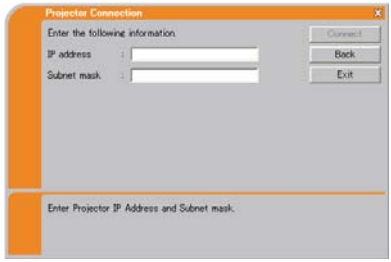
SSID: wireless (example)
Encryption: WEP64bit (example)
Encryption key ***2***: ********** (example)
Mode: AD-HOC



2) Click **[Next]**.

3) Enter the following information that is set in the projector. ***1***

IP address : 192.168.1.10 (example)
Subnet mask: 255.255.255.0 (example)



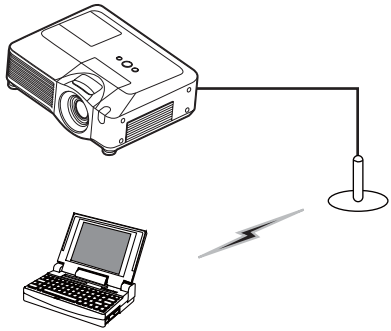
4) Click **[Connect]**.

5) The wireless connection will be established.
Proceed to the item **3.6 Confirm the connection to your destination**. (📖*50*)

1 To find the network setting on the projector, refer to the NOTE. (📖*40*)
2 If you use an encryption, you need to set it. Contact the network administrator to find the encryption key that is set in the projector.
The encryption key is always shown as "**********".

3.5 Manual configuration (continued)

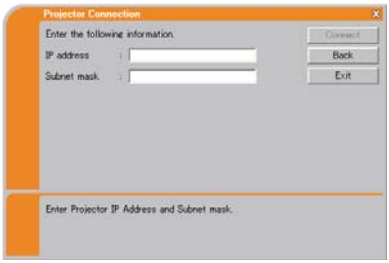
The projector connected to an access point by a LAN cable



1) The setting on the access point. ***1**
Enter the following information.
SSID: WirelessAccessPoint (example)
Encryption: WEP64bit (example)
Encryption key ***2**: ********** (example)
Mode: INFRASTRUCTURE

2) Click **[Next]**.

3) Enter the following information that is set in the projector. ***3**
IP address : 192.168.1.10 (example)
Subnet mask: 255.255.255.0 (example)



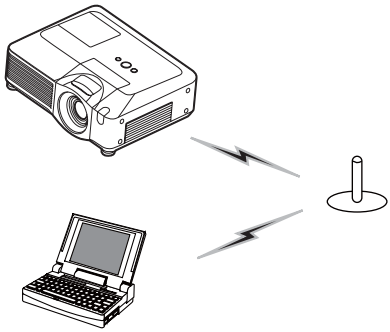
4) Click **[Connect]**.

5) The wireless connection will be established.
Proceed to the item **3.6 Confirm the connection to your destination**. (📖*50*)

***1** Contact the network administrator to find out the setting on the access point.
***2** If you use an encryption, you need to set it. Contact the network administrator to check the encryption key that is set in the projector.
The encryption key is always shown as "**********".
***3** To find the network setting on the projector, refer to the NOTE. (📖*40*)

3.5 Manual configuration (continued)

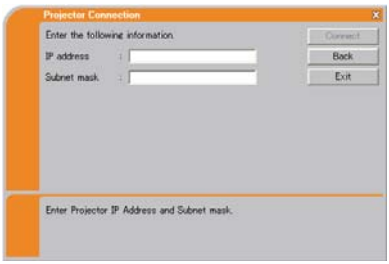
The projector connected to an access point by the wireless LAN



1) The setting on the access point. ***1***
Enter the following information.
SSID: WirelessAccessPoint (example)
Encryption: WEP64bit (example)
Encryption key ***2***: ********** (example)
Mode: INFRASTRUCTURE

2) Click **[Next]**.

3) Enter the following information that is set in the projector. ***3***
IP address : 192.168.1.10 (example)
Subnet mask: 255.255.255.0 (example)



4) Click **[Connect]**.

5) The wireless connection will be established.
Proceed to the item **3.6 Confirm the connection to your destination**. (📖*50*)

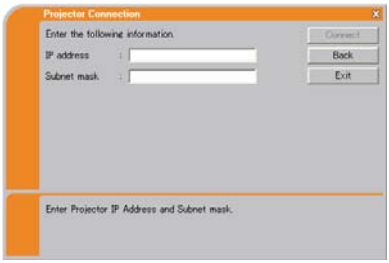
1 Contact the network administrator to find out the setting on the access point.
2 If you use an encryption, you need to set it. Contact the network administrator to check the encryption key that is set in the projector.
The encryption key is always shown as "**********".
3 To find the network setting on the projector, refer to the NOTE. (📖*40*)

3.5 Manual configuration (continued)

Wired LAN

1) Enter the following information for the projector. ***1**

IP address : 192.168.1.10 (example)
Subnet mask : 255.255.255.0 (example)



2) Click **[Connect]**.

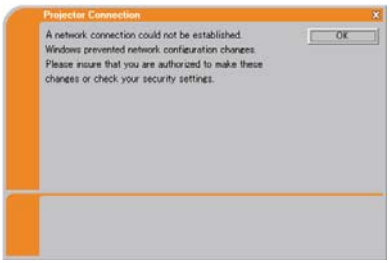
3) The network connection will be established.
Proceed to the item **3.6 Confirm the connection to your destination**. (📖*50*)

***1** To find the network setting on the projector, refer to the NOTE. (📖*40*)

[trouble shooting]

■ A network connection could not be established.

Windows prevented network configuration changes.


Projector Connection
A network connection could not be established.
Windows prevented network configuration changes.
Please insure that you are authorized to make these changes or check your security settings.
OK

You may log in the Windows under User authority.

Click **[OK]**, then the “Live Viewer 3” main menu is displayed even though the network is not established. Click on the main menu and go back to the item **3.3.3 Connecting to the network**. (📖*31*)

Consult to the network administrator. Log in the Windows under Administrator authority. After that, please resume at the item **3.3.1 Starting the “Live Viewer 3”**. (📖*26*)

3.5 Manual configuration (continued)

■ Automatic connection failed.

The reason is that the IP address set in the projector is the global address.

Following the instruction by the network administrator, set the IP address and Subnet mask in the “Live Viewer 3”.

After input these address, click **[Connect]**.

Projector Connection
Automatic connection failed (a Global IP Address is being used for the Projector you want to connect to).
Please enter a Static IP Address / Subnet Mask. Contact your Network Administrator as needed.
IP address :
Subnet mask :
Save IP Address Settings
Connect
Back
Exit
Reset

If you want to erase the information you input, click **[Reset]**.

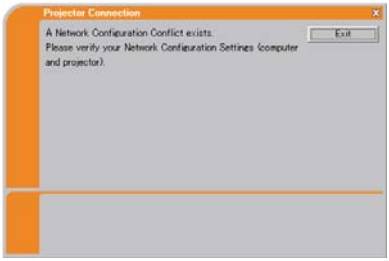
NOTE • If the IP address you input to the PC is the same as the one set in the projector, a warning message will come up. Please choose an IP address that is currently not in use.

■ A Network Configuration Conflict exists.

The message comes up when the network connection mode you set in the PC does not match with the mode of the projector.

Please verify your network configuration setting on the projector and PC.

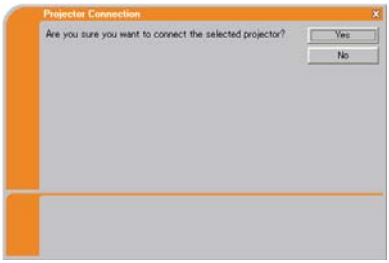
Click **[Exit]**, then the “Live Viewer 3” main menu is displayed even though the network is not established. Click on the main menu to go back to the item **3.3.3 Connecting to the network**. (*31*)


Projector Connection
A Network Configuration Conflict exists.
Please verify your Network Configuration Settings (computer and projector).
Exit

3.5 Manual configuration (continued)

■ Are you sure you want to connect the selected projector?

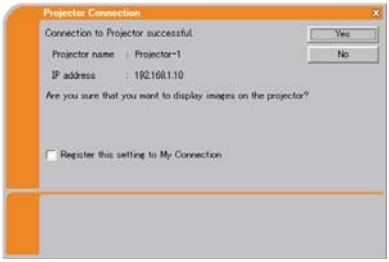
The message is appeared when the wireless adapter you selected is already used for another network connection.



- To connect, click **[Yes]**. Proceed to the **3.6 Confirm the connection to your destination**. (📖*50*)
- Not to connect, click **[No]** then the “Live Viewer 3” main menu is displayed even though the network is not established. Click on the main menu to go back to the item **3.3.3 Connecting to the network**. (📖*31*)

3.6 Confirm the connection to your destination

3.6.1 Connection and transmission


Projector Connection
Connection to Projector successful.
Yes
Projector name : Projector-1
No
IP address : 192.168.1.10
Are you sure that you want to display images on the projector?
Register this setting to My Connection

When the network connection is established, the “Connection to Projector successful” screen is displayed.

Make sure that the right projector that you want to send your image to is selected, by checking the projector name and IP address shown in the screen.

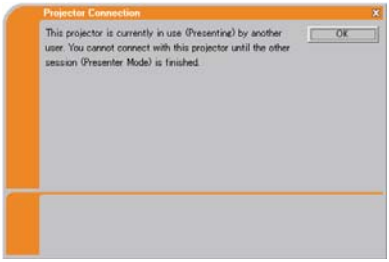
- To send images to the projector, click **[Yes]**. The transmission will be started. It is required to set the MIU as an input port and select the Live Mode in the MIU menu in the projector, to display the transmitted images. Refer to the item **3.6.3 Setting the Live Mode**. (*53*)

- Not to send, click **[No]**, then the “Live Viewer 3” main menu is displayed in stand-by mode. (The stand-by mode is the condition that the wireless connection is established, but the images are not transmitted.) The transmission can be started, if you click or button on the “Live Viewer 3” main menu.

If you wish to use the current connection setting as a profile data for My Connection, check in the box for **[Register this setting to My Connection]**.

[trouble shooting]

■ This projector is currently in use (Presenting) by another user.


Projector Connection
This projector is currently in use (Presenting) by another user. You cannot connect with this projector until the other session (Presenter Mode) is finished.
OK

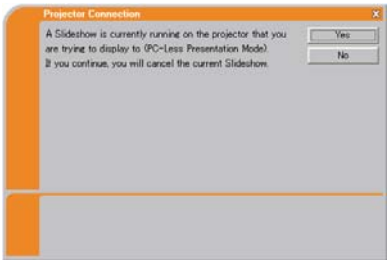
The projector you want to send your images to is occupied by another computer in the Presenter mode.

Click **[OK]**, then the “Live Viewer 3” main menu is displayed in stand-by mode. Retry to send your images, after the Presenter mode is off.

3.6 Confirm the connection to your destination (continued)

■ A Slideshow is currently running on the projector that you are trying to display to.

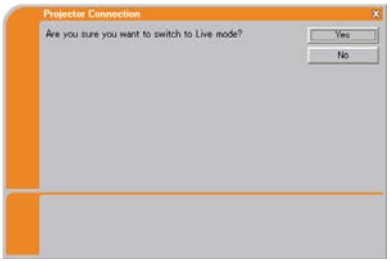
The projector you want to send your images to is in the Slide show mode in the PC-LESS Presentation.


Projector Connection
A Slideshow is currently running on the projector that you are trying to display to (PC-Less Presentation Mode).
If you continue, you will cancel the current Slideshow.
Yes
No

- Click **[Yes]**, then the projector is switched from the Slide show mode to the Live Mode.
- Click **[No]**, then the projector is remained in the Slide show mode, and the “Live Viewer 3” main menu is displayed in stand-by mode on your PC.

■ Are you sure you want to switch to Live Mode?

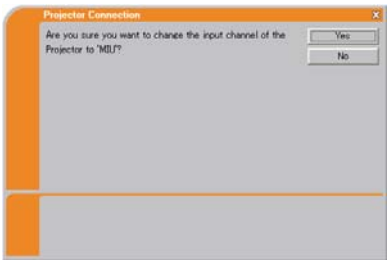
The projector is not set to the Live Mode.



- Click **[Yes]**, then the projector is switched to the Live Mode.
- Click **[No]**, then the projector is remained as it is, and the “Live Viewer 3” main menu is displayed in stand-by mode on your PC.

■ Are you sure you want to change the input channel of the Projector to MIU?

The projector is not set to the MIU as an input signal.



- Click **[Yes]**, then the projector is switched to the MIU.
- Click **[No]**, then the projector is remained as it is, and the “Live Viewer 3” main menu is displayed in stand-by mode on your PC.

3.6 Confirm the connection to your destination (continued)

3.6.2 Connection error

When the connection to the projector could not be established, an error message, “Network Connection not established”, will come up.

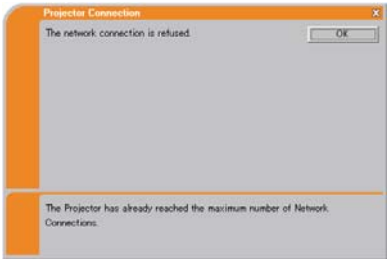
Click **[OK]** then the “Live Viewer 3” main menu is displayed even though the network is not established. Click on the main menu to go back to the item **3.3.3 Connecting to the network**. (*31*)

NOTE • If you selected the My Connection, the “Live Viewer 3” is closed. Check the network setting in the projector, and retry the connection from the item **3.3 Quick connection to the network**. (*26*)

[trouble shooting]

■ The network connection is refused.

The Projector has already reached the maximum number of Network Connections.


Projector Connection
The network connection is refused.
OK
The Projector has already reached the maximum number of Network Connections.

The projector can connect up to 5 PCs at the same time.

Click **[OK]**, then the “Live Viewer 3” main menu is displayed even though the network is not established.
After disconnecting a PC, please retry to connect to the network.

3.6 Confirm the connection to your destination (continued)

3.6.3 Setting the Live Mode

This section is intended to explain how to switch to the Live Mode in the MIU on the projector, by using the remote control or a web browser software.

From Web Remote Control on a web browser

1) Click **[LIVE MODE]** button.
(Refer to the item **4.1.11 Remote Control** (📖*86*))

From the OSD menu, by using the remote control or keypad on the projector.

1) Turn on the projector, and make sure that the projector image is on screen.
2) Press the MENU button on the remote control or the ▲/▼/◄/► buttons on the projector to show the menu on screen.
3) Use the ▲/▼ cursor buttons to select the Advanced Menu, and use the ► cursor button or ENTER button to enter the item.
4) Use the ▲/▼ cursor buttons to select the MIU, and use the ► cursor button or ENTER button.
5) Use the ▲/▼ cursor buttons to select the LIVE MODE, and push the ► cursor button or ENTER button.

(Refer to 📖 ***MIU menu in the User's Manual (detailed) – Operating Guide***)

From MY BUTTON function

1) Turn on the projector, and make sure that the projector image is on screen.
2) Press the MENU button on the remote control or the ▲/▼/◄/► buttons on the projector to show the menu on screen.
3) Use the ▲/▼ cursor buttons to select the Advanced Menu, and use the ► cursor button or ENTER button to enter the item.
4) Use the ▲/▼ cursor buttons to select the OPTION, and use the ► cursor button or ENTER button.
5) Use the ▲/▼ cursor buttons to select the MY BUTTON item, and use the ► cursor button or ENTER button to enter the item.
6) Choose 1 or 2 on the MY BUTTON item using the ◄/► cursor buttons. Then using the ▲/▼ buttons sets LIVE MODE function to the button.

(Refer to 📖 ***OPTION menu in the User's Manual (detailed) – Operating Guide***)

3.7 Start the “Live Viewer 3”

When you get the connection between your projector and PC, the “Live Viewer 3” main menu will be shown on the PC screen.
On the main menu you can configure the settings and operate the functions to send your images to the projector in the Live Mode.

3.7.1 Main menu and Operating buttons

1) Menu Type

There are 2 type of the main menu, Easy type and Advanced type, which can be switched on screen.

- When the “Live Viewer 3” is started, the last used type will be screen.
- When the network connection is not established, the Advanced type will be on screen.

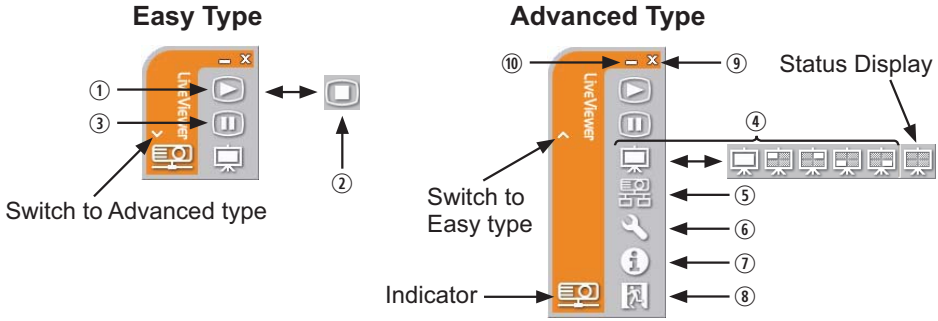


Fig. 3.7.1 a Live Viewer 3 Main menu

2) Operating buttons

① **Starting Capture button**
The transmission to the projector is started and the images will be displayed in the Live Mode.
The Display mode will be the Single PC mode at first. After that, the last Display mode will be applied.

② **Stop button**
The image transmission is stopped.

NOTE • The images may not be displayed on screen, if the Start/Stop buttons are clicked repeatedly.

3.7 Start the "Live Viewer 3" (continued)

③ **Hold button**
The image on screen is temporally frozen.
The last image before the button is clicked is remained on screen.
You can revise the image data on your PC without showing it on the projector's screen.

④ **Display mode button** (*57*)
The button switches the Single PC mode and Multi PC mode.

⑤ **Connect button**
The screen to select the connection mode is displayed.
Go to the item **3.3.3** (*31*)

⑥ **Option button**
The option screen is displayed.

⑦ **Information button**
The version of the "Live Viewer 3" is displayed.

⑧, ⑨ **Close button**
The network is disconnected and the "Live Viewer 3" is closed.

⑩ **Minimize button**
The main menu is closed, and the "Live Viewer 3" icon is displayed on the task tray in your PC. If the icon is double-clicked, the last type of the main menu will be shown on screen.

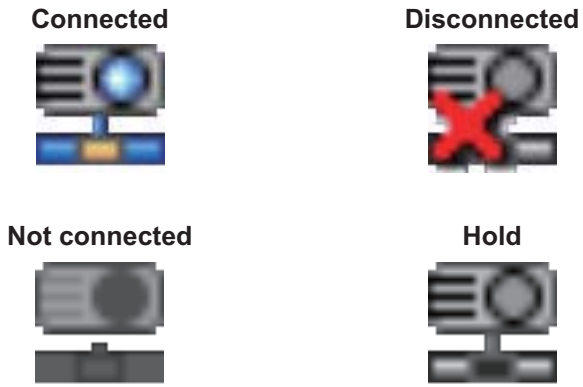


Fig. 3.7.1 b Task tray Icon

3.7 Start the "Live Viewer 3" (continued)

3.7.2 Displaying the status

1) Indicator
The indicator shows the following status.

Indicator	Status	Note
	Not connected	The network connection to the projector is not established yet.
	Hold	The network connection is established, but the image transmissions on hold.
	Connected	The network connection is established and the images on the PC are being sent to the projector.
	Disconnected	The network connection to the projector is disconnected.

2) Status Display in Multi PC mode
The icon is displayed at the right end of the Display mode buttons.
One of the following icons to inform which quarter screens are used will be shown.

Status	Status icon
No PC is on screen	
One PC is on screen.	
Two PCs are on screen.	
Three PCs are on screen.	
Four PCs are on screen.	

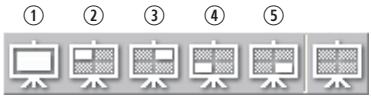
NOTE • The status display is refreshed in every 3 seconds.
• If the status cannot be gotten from the projector, it will not be displayed.

3.7 Start the "Live Viewer 3" (continued)

3.7.3 Switching the display mode

The "Live Viewer 3" has the Single PC mode and Multi PC mode. The modes can be switched on the main menu.

1) Click the button on the main menu.
   The buttons below are displayed.



2) Select from ① to ⑤ buttons, and click it.
   ① Switching to the Single PC mode : Your image is displayed on full screen.
   ②-⑤ Switching to the Multi PC mode : Your image is displayed on a quarter screen identified in the button.

3) The projector screen is switched to the mode selected above, and the transmission of your PC image will be started to display your image on the screen.

4) The icon on the main menu is replaced by the icon you selected.

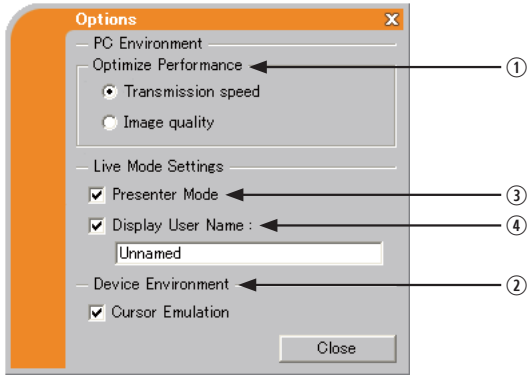
NOTE • The image transmission will be stopped, when you click the Single mode button while the projector is in the Single PC mode or you click one of the Multi mode buttons that shows the quarter screen which is currently displaying your PC images in the Multi PC mode.
• If the Multi PC mode is selected, the projector screen is automatically divided to 4 zones.
• If the Presenter mode is set on in the PC whose image is currently on screen in the Single PC mode, the button cannot be clicked on other PCs.
• If the quarter screen that displays images sent from another PC is selected, the network to the PC is disconnected.

(Refer to 🕮 ***MIU menu in the User's Manual (detailed) – Operating Guide*** for the function on the projector.)

3.7 Start the "Live Viewer 3" (continued)

3.7.4 Option menu

Clicking the Option button displays the option menu on screen.



① **Optimize Performance**
The "Live Viewer 3" captures PC screen in JPEG data and sends the JPEG data to the projector. The "Live Viewer 3" has two options that have different compression rate of JPEG data.

Transmission speed

Speed takes priority over Image quality.
It makes JPEG compression rate higher.
The screen on the projector is rewritten quicker because the transferred data is smaller, but the image quality is worse.

Image quality

Image quality takes priority over Speed.
It makes JPEG compression rate lower.
The screen on the projector is rewritten slower because the transferred data is larger, but the image quality is better.

② **Cursor Emulation**
If a mouse cursor (pointer) on your PC screen is not displayed on the projector screen, check in the box. The "Live Viewer3" helps you to find the cursor on the screen. If the cursor is on the projector screen, not check it.

3.7 Start the "Live Viewer 3" (continued)

③ **Presenter Mode**
In the Single PC mode, the projector can be occupied by one PC and can block an access from any other PC, if the Presenter mode is selected in the "Live Viewer 3".
While making your presentation, you don't need to worry that the image on screen is unexpectedly switched to an image sent by another PC.
If you want to turn it on, put a check mark in the check box.

NOTE • If the Multi PC mode is selected, the setting for the Presenter mode is invalid.
• When switching from the Multi PC mode to the Single PC mode, the Presenter mode setting of the PC is valid.
• The Presenter Mode is set valid in factory default setting.

④ **Display User Name**
A "User Name" that is up to 20 letters can be input by using alphanumeric characters.
The user name can be displayed on the projector screen, so you can find out whose image is currently on the screen.
(Refer to 🕮 ***MIU menu in the User's Manual (detailed) – Operating Guide***)
If the check box is not marked, the information is not sent to the projector.

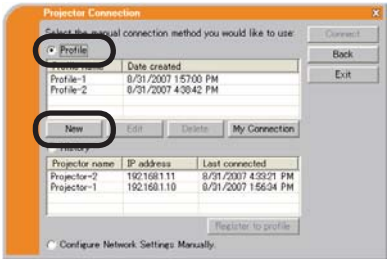
3.8 Profile data

3.8.1 Outline of Profile data

The network setting to connect the projector and PC can be stored as a profile data. Once the data is stored, all you need to do is to select the data to connect to the network. It is recommended when the same network connection is often used.

3.8.2 Making Profile data

The profile data is made on the Manual Configuration screen. (📖*41*)
Up to 10 profile data can be stored for each network adapter.



1) Select **[Profile]** and click **[New]**.

2) The “Create new profile” will come up.
If you have already made 10 profile data, you cannot make a new one, until you delete a stored data.

Input all information required for your network connection.
If you want to clear the information you input, click **[Clear]**.

3) Click **[OK]**, after all information is set.
If you don’t want to store it, click **[Cancel]**.

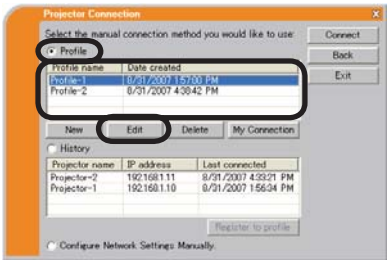
4) The new profile data is shown in the profile list, if you click **[OK]**.

NOTE • When you make a new profile data, it is strongly recommended to check that the new dada can work properly by selecting the data at the Profile connection. (📖*41*)
• If you change a wireless network adapter on the projector or PC, make a new profile data for the adapter.

3.8 Profile data (continued)

3.8.3 Editing Profile data

If necessary, the profile data can be edited on the Manual Configuration screen. (📖*41*)



1) Select **[Profile]**, and select one of the data listed in the window.

2) Click **[Edit]**.

3) The “Edit profile” screen will come up.

4) Edit the information required to be revised. If you want to clear all information in the window, click **[Clear]**.

5) Click **[OK]**, after the editing is completed. If you don’t want to store it, click **[Cancel]**.

6) The edited profile data is stored and shown in the profile list with the new date created information, if you click **[OK]**.

NOTE • When you edit a profile data, it is strongly recommended to check that the edited data can work properly by selecting the data at the Profile connection. (📖*41*)

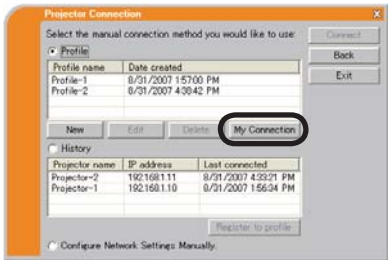
3.8 Profile data (continued)

3.8.4 Registering My Connection

One of the profile data, which is often used, can be registered as the My Connection profile data. Once the data is registered, all you need to do is to select the My Connection to connect to the network. (📖29)

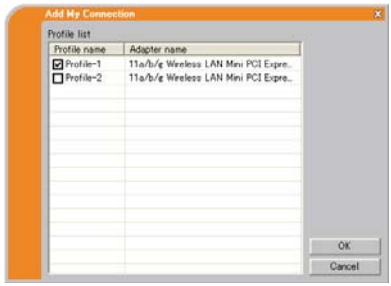
1) Click **[My Connection]**.

2) The “Add My Connection” screen will come up.
The currently selected profile data for the My Connection is shown with a check mark in the list.



3) Select one of the profile data listed in the window and put a mark in the check box.
The data selected before is turned unmarked.

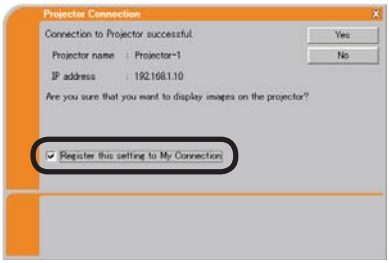
4) Click **[OK]**, then the window is closed.
If you don’t want to select a new one, click **[Cancel]**.



NOTE • If you don’t want to use the My Connection, mark no data listed in the window, and click **[OK]**.
• In the list, all profile data are shown no matter which network adapter is selected. You can register a profile data that is not for currently selected network adapter as the My Connection profile data.

3.8 Profile data (continued)

Also, you can register a profile data to My Connection, when the network connection is established. When it is established, the “Connection to Projector successful” screen is displayed. (📖*50*)
If you wish to use the current connection setting for My Connection, check in the box for **[Register this setting to My Connection]**.
And then, if it is okay to overwrite the present data for My Connection, click **[OK]**.
A new profile data will be created and it is registered as My Connection profile data.


Projector Connection
Connection to Projector successful.
Yes
No
Projector name : Projector-1
IP address : 192.168.1.10
Are you sure that you want to display images on the projector?
Register this setting to My Connection

NOTE • If there are already 10 profile data, the check box cannot be checked. Please erase one of the existing profile data.
• The profile name for the stored data is assigned by the “Live Viewer 3” automatically. The name will be shown at the right side of the check box.

4. Management with Web browser software

This projector is equipped with the following network functions by using a web browser software.

Confi guring and controlling the projector via a web browser

You can change the settings of or control the projector via a network by using a web browser from a PC that is connected to the same network.
(📖67)

E-mail Alerts

The projector can automatically send an alert to specified e-mail addresses when the projector requires maintenance or has encountered an error.
(📖90)

Projector Management using SNMP

This projector is SNMP (Simple Network Management Protocol) compliant, allowing you to monitor it from a remote location using SNMP software. In addition, the projector is able to send failure & warning alerts to a specified PC.
(📖92)

Event Scheduling

You can schedule the projector to perform various functions according to the date and time.
(📖93)

MY IMAGE (Still Image Transfer) Display

The projector can display still images that are transferred via the network.
(📖96)

Command Control via the Network

The projector can be controlled using RS-232C commands over a network.
(📖97)

4.1 Configuring and controlling the projector via a web browser

You can adjust or control the projector via a network from a web browser on a PC that is connected to the same network.

NOTE • Internet Explorer 5.5 or later is required.
• If JavaScript is disabled in your web browser configuration, you must enable JavaScript in order to use the projector web pages properly. See the Help files for your web browser for details on how to enable JavaScript.
• It is recommended that all web browser updates are installed. It is especially recommended that all users running Internet Explorer on a Microsoft Windows version prior to Windows XP Service Pack 2 install security update Q832894 (MS04-004) or the web browser interface may not be displayed correctly.
And when using an earlier version of Internet Explorer, during operations the browser will log out after 50 seconds.

4.1 Configuring and controlling the projector via a web browser (Continued)

When configuring or controlling the projector via a web browser, an ID and password are required. There are two types of IDs, Administrator ID and User ID. The following chart describes the differences between Administrator and User IDs.

Item	Description	Administrator	User
Network Information	Displays the projector's current network configuration settings.	√	√
Network Settings	Displays and configures network settings.	√	N/A
Port Settings	Displays and configures communication port settings.	√	N/A
Mail Settings	Displays and configures e-mail addressing settings.	√	N/A
Alert Settings	Displays and configures failure & warning alerts.	√	N/A
Schedule Settings	Displays and configures schedule settings.	√	N/A
Date/Time Settings	Displays and configures the date and time settings.	√	N/A
Security Settings	Displays and configures passwords and other security settings.	√	N/A
Projector Control	Controls the projector.	√	√
Remote Control	Controls the projector like IR remote.	√	√
Projector Status	Displays and configures the current projector status.	√	√
Network Restart	Restarts the projector's network connection.	√	N/A

4.1 Configuring and controlling the projector via a web browser (Continued)

4.1.1 Logon

Refer to the following for configuring or controlling the projector via a web browser.

Example: If the IP address of the projector is set to **192.168.1.10**:

1) Enter **"http://192.168.1.10/"** into the address bar of the web browser and press "Enter" key or click "→" button. The screen in Fig. 4.1.1a will be displayed.

2) Enter your ID and password and click **[Logon]**.

Fig. 4.1.1 a "Logon menu"

Below are the factory default settings for administrator ID, user ID and passwords.

Item	ID	Password
Administrator	Administrator	<blank>
User	User	<blank>

If the logon is successful, either the Fig. 4.1.1 b or Fig. 4.1.1 c screen will be displayed.

Main menu

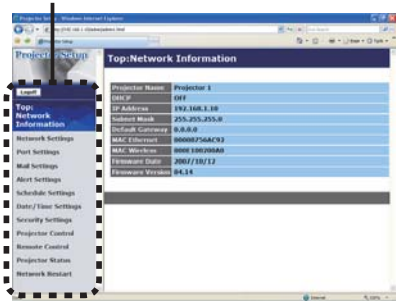


Fig. 4.1.1 b "Logon with Administrator ID"

Main menu

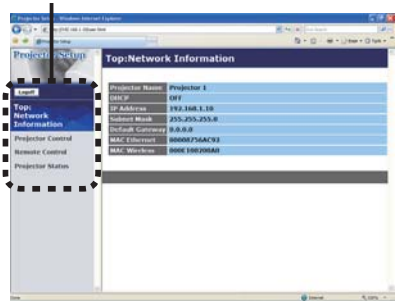


Fig. 4.1.1 c "Logon with User ID"

3) Click the desired operation or configuration item on the main menu located on the left-hand side of the screen.

4.1 Configuring and controlling the projector via a web browser (Continued)

4.1.2 Network Information

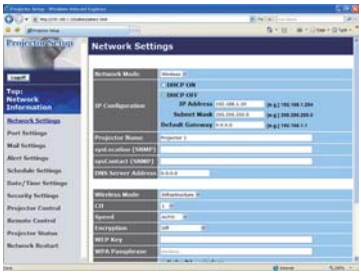
All screen drawings in this manual are shown when you logon with the Administrator ID. Any functions that are available only for the Administrator will not be shown when you logon with the User ID. Refer to the table. (📖*66, 67*)

Displays the projector's current network configuration settings.

Item	Description
Projector Name	Displays the projector name settings.
DHCP	Displays the DHCP configuration settings.
IP Address	Displays the current IP address.
Subnet Mask	Displays the subnet mask.
Default Gateway	Displays the default gateway.
MAC Ethernet	Displays the ethernet MAC address.
MAC Wireless	Displays the wireless LAN MAC address. **NOTE** • MAC wireless will not be displayed when the NETWORK MODE is set to the WIRED even if the wireless network card is mounted. (📖***MIU menu in the User's Manual (detailed)) – Operating Guide***)
Firmware Date	Displays the network firmware time stamp. This information is only displayed when logged on using an Administrator ID.
Firmware Version	Displays the network firmware version number. This information is only displayed when logged on using an Administrator ID.

4.1 Configuring and controlling the projector via a web browser (Continued)

4.1.3 Network Settings



Displays and configures network settings.

Item	Description
Network Mode	Select Network mode “Wired” or “Wireless”.
IP Configuration	Configures network settings.
DHCP ON	Enables DHCP.
DHCP OFF	Disables DHCP.
IP Address	Configures the IP address when DHCP is disabled.
Subnet Mask	Configures the subnet mask when DHCP is disabled.
Default Gateway	Configures the default gateway when DHCP is disabled.
Projector Name	Configures the name of the projector. The length of the Projector Name can be up to 64 alphanumeric characters. Only alphabets, numbers and following symbols can be used. !"#$%&'()*+,-./:;<=>?@[\]^_`{|}~ and space
sysLocation (SNMP)	Configures the location to be referred to when using SNMP. The length of the sysLocation can be up to 255 alphanumeric characters. Only numbers ‘0-9’ and alphabet ‘a-z’, ‘A-Z’ can be used.
sysContact (SNMP)	Configures the contact information to be referred to when using SNMP. The length of the sysContact can be up to 255 alphanumeric characters. Only numbers ‘0-9’ and alphabet ‘a-z’, ‘A-Z’ can be used.
DNS Server Address	Configures the DNS server address.

4.1 Configuring and controlling the projector via a web browser (Continued)

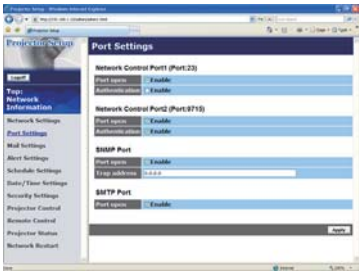
Item	Description
Wireless Mode	Select “AD-HOC” or “Infrastructure”.
CH (Communication channel)	Select using channel between “1” and “11”. **NOTE** • Depending on the country where you are the channels may vary. In addition, depending on the country or region where you are may be required to use a wireless network card that confirm to the standards in the respective country or region.
Speed (Communication speed)	Select communication speed.
Encryption	Select data encryption method.
WEP Key	Input WEP key, which has same length defined by WEP. When “64bit” or “128bit” is selected, input 10 characters or 26 characters respectively. Only numbers from “0” to “9” and alphabets from “a” to “f” (whichever small or capital characters) can be used. Enter the series of two characters pair. It will be cleared by 0, if the total length is odd.
WPA Passphrase	Input WPA Passphrase. Available number of input characters is 8 to 63. Only alphabets, numbers and following symbols can be used. !"#$%&'()*+,-./:;<=>?@ [\]^_`{|}~ and space
SSID	Select an SSID from the list. If you require to set your unique SSID, select **[Custom]**, then set your own SSID following the rules below. Maximum number of input characters is 32. Only alphabets, numbers and following symbols can be used. !"#$%&'()*+,-./:;<=>?@[\]^_`{|}~ and space.

Click **[Apply]** button to save the settings.

NOTE • The new configuration settings are activated after restarting the network connection. When the configuration settings are changed, you must restart the network connection. You can restart the network connection by clicking **[Network Restart]** on the main menu.
• If you connect the projector to an existing network, consult a network administrator before setting server addresses.
• The WEP Key, WPA passphrase and SSID settings will not be set if the invalid characters are used.

4.1 Configuring and controlling the projector via a web browser (Continued)

4.1.4 Port Settings



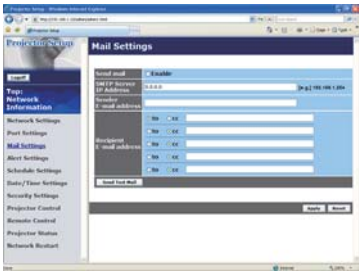
Displays and configures communication port settings.

Item		Description
Network Control Port1 (Port:23)		Configures command control port 1 (Port:23).
	Port open	Click **[Enable]** check box to use port 23.
	Authentication	Click **[Enable]** check box when authentication is required for this port.
Network Control Port2 (Port:9715)		Configures command control port 2 (Port:9715).
	Port open	Click **[Enable]** check box to use port 9715.
	Authentication	Click **[Enable]** check box when authentication is required for this port.
SNMP Port		Configures the SNMP port.
	Port open	Click **[Enable]** check box to use SNMP.
	Trap address	Configures the destination of the SNMP Trap in IP format. • The address allows not only IP address but also domain name if the valid DNS server is setup in the **Network Settings**. The maximum length of host or domain name is up to 255 characters.
SMTP Port		Configures the SMTP port.
	Port open	Click **[Enable]** check box to use the e-mail function.

Click **[Apply]** button to save the settings.

4.1 Configuring and controlling the projector via a web browser (Continued)

4.1.5 Mail Settings



Displays and configures e-mail addressing settings.

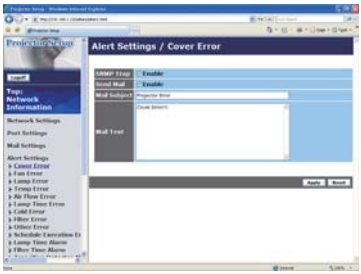
Item	Description
Send mail	Click **[Enable]** check box to use the e-mail function. Configure the conditions for sending e-mail under the Alert Settings.
SMTP Server IP Address	Configures the address of the mail server in IP format. • The address allows not only IP address but also domain name if the valid DNS server is setup in the **Network Settings**. The maximum length of host or domain name is up to 255 characters.
Sender E-mail address	Configures the sender e-mail address. The length of the sender e-mail address can be up to 255 alphanumeric characters.
Recipient E-mail address	Configures the e-mail address of up to five recipients. You can also specify **[TO]** or **[CC]** for each address. The length of the recipient e-mail address can be up to 255 alphanumeric characters.

Click **[Apply]** button to save the settings.

NOTE • You can confirm whether the mail settings work correctly using **[Send Test Mail]** button. Please enable Send mail setting before clicking **[Send Test Mail]**.
• If you connect the projector to an existing network, consult a network administrator before setting server addresses.

4.1 Configuring and controlling the projector via a web browser (Continued)

4.1.6 Alert Settings



Displays and configures failure & alert settings.

Alert Item	Description
Cover Error	The lamp cover has not been properly fixed.
Fan Error	The cooling fan is not operating.
Lamp Error	The lamp does not light, and there is a possibility that interior portion has become heated.
Temp Error	There is a possibility that the interior portion has become heated.
Air Flow Error	The internal temperature is rising.
Lamp Time Error	Lamp time over.
Cold Error	There is a possibility that the interior portion has become overcooled.
Filter Error	Filter time over.
Other Error	Other error. If displaying this error, please contact your dealer.
Schedule Execution Error	Schedule Execution error. (📖***75***)
Lamp Time Alarm	Lamp time over Alarm Time setting.
Filter Time Alarm	Filter time over Alarm Time setting.
Transition Detector Alarm	Transition Detector Alarm. (📖***OPTION menu in the User's Manual (detailed) – Operating Guide***)
Cold Start	The power switch is turned on. (Off → standby mode)
Authentication Failure	The SNMP access is detected from the invalid SNMP community.

Refer to ***"Troubleshooting" in the User's Manual (detailed) – Operating Guide*** for further detailed explanation of Error except Other Error and Schedule Execution Error.

4.1 Configuring and controlling the projector via a web browser (Continued)

The Alert Items are shown below.

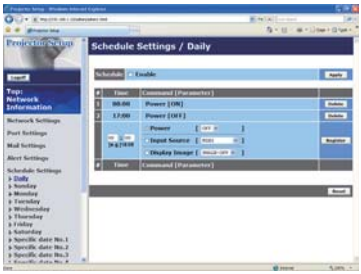
Setting Item	Description
Alarm Time	Configures the time to alert. (Only **Lamp Time Alarm** and **Filter Time Alarm**.)
SNMP Trap	Click **[Enable]** check box to enable SNMP Trap alerts.
Send Mail	Click **[Enable]** check box to enable e-mail alerts. (Except **Cold Start** and **Authentication Failure**.)
Mail Subject	Configures the subject line of the e-mail to be sent. The length of the subject line can be up to 100 alphanumeric characters. (Except **Cold Start** and **Authentication Failure**.)
Mail Text	Configures the text of the e-mail to be sent. The length of the text can be up to 1024 alphanumeric characters. (Except **Cold Start** and **Authentication Failure**.)

Click **[Apply]** button to save the settings.

NOTE • The trigger of **Filter Error** e-mail is depending on the FILTER MESSAGE setting in the SERVICE item of the OPTION menu which defines the period until the filter message is displayed on the projector screen. The e-mail will be sent when the filter timer exceeds 500, 1000, 1500 or 2000 hours based on the configuration. No notification e-mail will be sent if the FILTER MESSAGE is set to TURN OFF. (📖***OPTION menu in the User's Manual (detailed) – Operating Guide***)
• **Lamp Time Alarm** is defined as a threshold for e-mail notification (reminder) of the lamp timer. When the lamp hour exceeds this threshold that is configured through the Web page, the e-mail will be sent out.
• **Filter Time Alarm** is defined as a threshold for e-mail notification (reminder) of the filter timer. When the filter hour exceeds this threshold, the e-mail will be sent out.

4.1 Configuring and controlling the projector via a web browser (Continued)

4.1.7 Schedule Settings



Displays and configures schedule settings.

Item	Description
Daily	Configures the daily schedule.
Sunday	Configures the Sunday schedule.
Monday	Configures the Monday schedule.
Tuesday	Configures the Tuesday schedule.
Wednesday	Configures the Wednesday schedule.
Thursday	Configures the Thursday schedule.
Friday	Configures the Friday schedule.
Saturday	Configures the Saturday schedule.
Specific date No.1	Configures the specific date (No.1) schedule.
Specific date No.2	Configures the specific date (No.2) schedule.
Specific date No.3	Configures the specific date (No.3) schedule.
Specific date No.4	Configures the specific date (No.4) schedule.
Specific date No.5	Configures the specific date (No.5) schedule.

4.1 Configuring and controlling the projector via a web browser (Continued)

The schedule settings are shown below.

Item	Description
Schedule	Click **[Enable]** check box to enable the schedule.
Date (Month/Day)	Configures the month and date. This item appears only when Specific date (No. 1-5) is selected.

Click **[Apply]** button to save the settings.

The current event settings are displayed on the schedule list. To add additional functions and events, set the following items.

Item		Description
Time		Configures the time to execute commands.
Command [Parameter]		Configures the commands to be executed.
	Power	Configures the parameters for power control.
	Input Source	Configures the parameters for input switching.
	Display Image	Configures the parameters for display of transfered image data (📖96).

Click **[Register]** button to add new commands to the schedule list.

Click **[Delete]** button to delete commands from the schedule list.

Click **[Reset]** button to delete all commands and reset the schedule settings from the schedule list.

NOTE • After the projector is moved, check the date and time set for the projector before configuring the schedules. Strong shock may make the date and time settings (📖77) get out of tune.

4.1 Configuring and controlling the projector via a web browser (Continued)

4.1.8 Date/Time Settings

Displays and configures the date and time settings.

Item			Description
Current Date			Configures the current date in **year/month/day** format.
Current Time			Configures the current time in **hour:minute:second** format.
Daylight Savings Time			Click **[ON]** check box to enable daylight savings time and set the following items.
	Start		Configures the date and time daylight savings time begins.
		Month	Configures the month daylight savings time begins (1~12).
		Week	Configures the week of the month daylight savings time begins (First, 2, 3, 4, Last).
		Day	Configures the day of the week daylight savings time begins (Sun, Mon, Tue, Wed, Thu, Fri, Sat).
		Time **hour**	Configures the hour daylight savings time begins (0 ~ 23).
		Time **minute**	Configures the minute daylight savings time begins (0 ~ 59).
	End		Configures the date and time daylight savings time ends.
		Month	Configures the month daylight savings time ends (1 ~ 12).
		Week	Configures the week of the month daylight savings time ends (First, 2, 3, 4, Last).
		Day	Configures the day of the week daylight savings time ends (Sun, Mon, Tue, Wed, Thu, Fri, Sat).
		Time **hour**	Configures the hour daylight savings time ends (0 ~ 23).
		Time **minute**	Configures the minute daylight savings time ends (0 ~ 59).

4.1 Configuring and controlling the projector via a web browser (Continued)

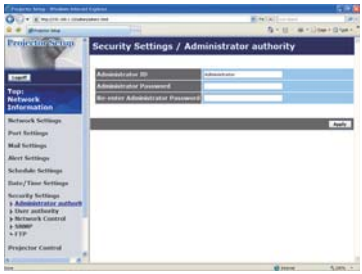
Item		Description
Time difference		Configures the time difference. Set the same time difference as the one set on your PC. If unsure, consult your IT manager.
SNTP		Click the **[ON]** check box to retrieve Date and Time information from the SNTP server and set the following items.
	SNTP Server IP Address	Configures the SNTP server address in IP format. • The address allows not only IP address but also domain name if the valid DNS server is setup in the **Network Settings**. The maximum length of host or domain name is up to 255 characters.
	Cycle	Configures the interval at which to retrieve Date and Time information from the SNTP server (**hour:minute**).

Click **[Apply]** button to save the settings.

NOTE • If you connect the projector to an existing network, consult a network administrator before setting server addresses.
• To enable the SNTP function, the time difference must be set.
• The projector will retrieve Date and Time information from the time server and override time settings when SNTP is enabled.
• The internal clock's time may not remain accurate. Using SNTP is recommended to maintain accurate time.

4.1 Configuring and controlling the projector via a web browser (Continued)

4.1.9 Security Settings



Displays and configures passwords and other security settings.

Item		Description
Administrator authority		Configures the Administrator ID and password.
	Administrator ID	Configures the Administrator ID. The length of the text can be up to 32 alphanumeric characters.
	Administrator Password	Configures the Administrator password. The length of the text can be up to 255 alphanumeric characters.
	Re-enter Administrator Password	Reenter the above password for verification.
User authority		Configures the User ID and password.
	User ID	Configures the User ID. The length of the text can be up to 32 alphanumeric characters.
	User Password	Configures the User password. The length of the text can be up to 255 alphanumeric characters.
	Re-enter User Password	Reenter the above password for verification.

4.1 Configuring and controlling the projector via a web browser (Continued)

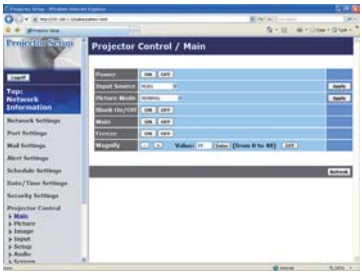
Item		Description
Network Control		Configures the Authentication password for the command control.
	Authentication Password	Configures the Authentication password. The length of the text can be up to 32 alphanumeric characters.
	Re-enter Authentication Password	Reenter the above password for verification.
SNMP		Configures the community name if SNMP is used.
	Community name	Configures the community name. The length of the text can be up to 64 alphanumeric characters.
FTP		Configures the FTP user and password.
	User	Configures the user name. The length of the text can be up to 32 alphanumeric characters.
	Password	Configures the password. The length of the text can be up to 32 alphanumeric characters.
	Re-enter Password	Reenter the above password for verification.

Click **[Apply]** button to save the settings.

NOTE • Only numbers ‘0-9’ and alphabet ‘a-z’, ‘A-Z’ can be used.

4.1 Configuring and controlling the projector via a web browser (Continued)

4.1.10 Projector Control



The items shown in the table below can be performed using the Projector Control menu. Select an item using the up and down arrow keys on the PC.
Most of the items have a submenu. Refer to the table below for details.

NOTE • The setting value may not match with the actual value if the user changes the value manually. In that case, please refresh the page by clicking **[Refresh]** button.

Controls the projector.

Item		Description
Main		
	Power	Turns the power on/off.
	Input Source	Selects the input source.
	Picture Mode	Selects the picture mode setting.
	Blank On/Off	Turns Blank on/off.
	Mute	Turns Mute on/off.
	Freeze	Turns Freeze on/off.
	Magnify	Controls the magnify setting. In some input signal sources, it might stop “Magnify” even though it does not reach to maximum setting value.
Picture		
	Brightness	Adjusts the brightness setting.
	Contrast	Adjusts the contrast setting.
	Gamma	Selects the gamma setting.
	Color Temp	Selects the color temperature setting.
	Color	Adjusts the color setting.
	Tint	Adjusts the tint setting.
	Sharpness	Adjusts the sharpness setting.
	Active Iris	Selects the active iris setting.
	MyMemory Save	Saves the MyMemory data.
	MyMemory Recall	Recalls the MyMemory data.

4.1 Configuring and controlling the projector via a web browser (Continued)

Item		Description
Image		
	Aspect	Selects the aspect setting.
	Over Scan	Adjusts the over scan setting.
	V Position	Adjusts the vertical position.
	H Position	Adjusts the horizontal position.
	H Phase	Adjusts the horizontal phase.
	H Size	Adjusts the horizontal size.
	Auto Adjust Execute	Performs the automatic adjustment.
Input		
	Progressive	Selects the progressive setting.
	Video NR	Selects the video noise reduction setting.
	3D-YCS	Selects the 3D-YCS setting.
	Color Space	Selects the color space.
	Component	Selects the COMPONENT port setting.
	C-Video Format	Selects the video format setting.
	S-Video Format	Selects the s-video format setting.
	HDMI	Selects the HDMI setting.
	Frame Lock-RGB1	Turns the frame lock-RGB1 function on/off.
	Frame Lock-RGB2	Turns the frame lock-RGB2 function on/off.
	Frame Lock-HDMI	Turns the frame lock-HDMI function on/off.
	RGB in-1	Selects the RGB1 input signal type.
	RGB in-2	Selects the RGB2 input signal type.
Setup		
	Auto Keystone Execute	Performs the automatic keystone distortion setting.
	Keystone V	Adjusts the vertical keystone distortion setting.
	Keystone H	Adjusts the horizontal keystone distortion setting.
	Whisper	Selects the whisper mode.
	Mirror	Selects the mirror status.
	Monitor Out-RGB1	Assigns the RGB OUT when the RGB1 input port is selected.
	Monitor Out-RGB2	Assigns the RGB OUT when the RGB2 input port is selected.
	Monitor Out-HDMI	Assigns the RGB OUT when the HDMI input port is selected.
	Monitor Out-MIU	Assigns the RGB OUT when the MIU input port is selected.
	Monitor Out-Component	Assigns the RGB OUT when the COMPONENT input port is selected.
	Monitor Out-S-Video	Assigns the RGB OUT when the S-VIDEO input port is selected.
	Monitor Out-Video	Assigns the RGB OUT when the VIDEO input port is selected.
	Monitor Out-Standby	Assigns the RGB OUT in the standby mode.

4.1 Configuring and controlling the projector via a web browser (Continued)

Item		Description
Audio		
	Volume	Adjusts the volume setting.
	Treble	Adjust the Treble setting.
	Bass	Adjusts the Bass setting.
	SRS WOW	Selects the SRS WOW setting.
	Speaker	Turns the built-in speaker on/off.
	Audio-RGB1	Assigns the AUDIO-RGB1 input port.
	Audio-RGB2	Assigns the AUDIO-RGB2 input port.
	Audio-HDMI	Assigns the AUDIO-HDMI input port.
	Audio-MIU	Assigns the AUDIO-MIU input port.
	Audio-Component	Assigns the AUDIO-COMPONENT input port.
	Audio-S-Video	Assigns the AUDIO-S-VIDEO input port.
	Audio-Video	Assigns the AUDIO-VIDEO input port.
	Audio Out Standby	Assigns the AUDIO OUT in the standby mode.
	HDMI Audio	Selects the HDMI audio setting.
Screen		
	Language	Selects the language for the OSD.
	Menu Position V	Adjusts the vertical Menu position.
	Menu Position H	Adjusts the horizontal Menu position.
	Blank	Selects the Blank mode.
	Startup	Selects the startup screen mode.
	MyScreen Lock	Turns MyScreen lock function on/off.
	Message	Turns the message function on/off.
	Template	Selects the template setting.

4.1 Configuring and controlling the projector via a web browser (Continued)

Item		Description
Option		
	Auto Search	Turns the automatic signal search function on/off.
	Auto Keystone	Turns the automatic keystone distortion correction function on/off.
	Auto on	Turns the auto on function on/off.
	Auto off	Configures the timer to shut off the projector when no signal is detected.
	My Button-1	Assigns the functions for the MY BUTTON1 button on the included remote control.
	My Button-2	Assigns the functions for the MY BUTTON2 button on the included remote control.
	My Source	Selects the My Source setting.
	Remote Receiv. Front	Enable/Disable remote receiv. front.
	Remote Receiv. Rear	Enable/Disable remote receiv. rear.
	Remote Receiv. Top	Enable/Disable remote receiv. top.
	Remote Freq. Normal	Enables/Disables the remote control signal frequency normal.
	Remote Freq. High	Enables/Disables the remote control signal frequency high.
Closed Caption		
	Display	Selects Closed Caption DISPLAY setting.
	Mode	Selects Closed Caption MODE setting.
	Channel	Selects Closed Caption CHANNEL setting.

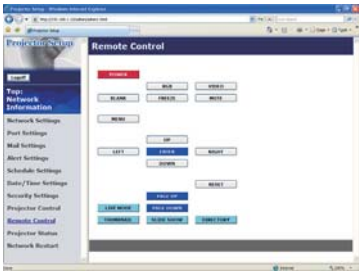
4.1 Configuring and controlling the projector via a web browser (Continued)

The **Service** item in the **Projector Control** menu is shown only when you logon with the Administrator ID.
The items shown in the table below can be performed using the **Projector Control** menu.
Click **[Quit Presenter Mode]**.

Item		Description
Service		
	Quit Presenter Mode	Quit compulsorily from the Presenter mode.

4.1 Configuring and controlling the projector via a web browser (Continued)

4.1.11 Remote Control



You can use your Web browser to control the projector.

• Do not attempt to control the projector with the projector's remote control and via your Web browser at the same time. It may cause some operational errors in the projector.

The functions on the bundled remote control are assigned to the Web Remote Control screen.

Item	Description
POWER	Assigned the same operation as STANDBY/ON button.
RGB	Assigned the same operation as RGB button.
VIDEO	Assigned the same operation as VIDEO button.
BLANK	Assigned the same operation as BLANK button.
FREEZE	Assigned the same operation as FREEZE button.
MUTE	Assigned the same operation as MUTE button.
MENU	Assigned the same operation as MENU button.
UP	Assigned the same operation as ▲ button.
DOWN	Assigned the same operation as ▼ button.
LEFT	Assigned the same operation as ◄ button.
RIGHT	Assigned the same operation as ► button.
ENTER	Assigned the same operation as ENTER button.
RESET	Assigned the same operation as RESET button.
PAGE UP	Assigned the same operation as PAGE UP button.
PAGE DOWN	Assigned the same operation as PAGE DOWN button.

4.1 Configuring and controlling the projector via a web browser (Continued)

The functions on PC-LESS PRESENTATION menu are assigned to the Web Remote Control screen.

Item	Description
LIVE MODE	Selecting this item sets the projector onto the “Live Mode”.
THUMBNAIL	Selecting this item sets the projector onto the “Thumbnail mode”.
SLIDE SHOW	Selecting this item sets the projector onto the “Slide Show mode”.
DIRECTORY	Selecting this item sets the projector onto the “Directory mode”.

NOTE • The Web Remote Control does not support repeat function that performs an action while holding a button clicked down.
• Since the repeat function is not available, click the button repeatedly as many times as you require.
• Even if you hold the button clicked down for a while, the Web Remote Control sends your request command one time only. Release the button, then click it again.
• When **[POWER]** button is pushed, a message window comes up to confirm the operation. If you wish to turn it off, push **[OK]**, otherwise push **[Cancel]**.
• **[PAGE DOWN]** and **[PAGE UP]** buttons on the Web Remote Control cannot be used as mouse emulation function of the projector.

4.1 Configuring and controlling the projector via a web browser (Continued)

4.1.12 Projector Status

Displays and configures the current projector status.

Item	Description
Error Status	Displays the current error status
Lamp Time	Displays the usage time for the current lamp.
Filter Time	Displays the usage time for the current filter.
Power Status	Displays the current power status.
Input Status	Displays the current input signal source.
Blank On/Off	Displays the current Blank on/off status.
Mute	Displays the current Mute on/off status.
Freeze	Displays the current Freeze status.

4.1 Configuring and controlling the projector via a web browser (Continued)

4.1.13 Network Restart

Restarts the projector's network connection.

Item	Description
Restart	Restarts the projector's network connection in order to activate new configuration settings.

NOTE • Restarting requires you to re-log on in order to further control or configure the projector via a web browser. Wait 10 seconds or more after clicking **[Restart]** button to log on again.
• The Logon menu (📖67) is displayed after restarting the projector's network connection if the DHCP is set to ON.

4.1.14 Logoff

When **[Logoff]** is clicked, the Logon menu is displayed (📖67).

4.2 E-mail Alerts

The projector can automatically send an alert message to the specified e-mail addresses when the projector detects a certain condition that is requiring maintenance or detected an error.

NOTE • Up to five e-mail addresses can be specified.
• The projector may be not able to send e-mail if the projector suddenly loses power.

Mail Settings (📖72)

To use the projector's e-mail alert function, please configure the following items through a web browser.

Example: If the IP address of the projector is set to **192.168.1.10:**
1) Enter **"http://192.168.1.10/"** into the address bar of the web browser.
2) Enter the Administrator ID and password and click **[Logon]**.
3) Click **[Port Settings]** on the main menu.
4) Click **[Enable]** check box to open the SMTP Port.
5) Click **[Apply]** button to save the settings.
6) Click **[Mail Settings]** and configure each item. Refer to the item **4.1.5 Mail Settings** (📖72) for further information.
7) Click **[Apply]** button to save the settings.

NOTE • Click **[Send Test Mail]** button in **[Mail Settings]** to confirm that the e-mail settings are correct. The following mail will be delivered to the specified addresses.

Subject line	:Test Mail	<Projector name>
Text	:Send Test Mail	
	Date	<Testing date>
	Time	<Testing time>
	IP Address	<Projector IP address>
	MAC Address	<Projector MAC address>

4.2 E-mail Alerts (Continued)

8) Click **[Alert Settings]** on the main menu to configure the E-mail Alerts settings.
9) Select and configure each alert item. Refer to the item **4.1.6 Alert Setting** (📖*73*) for further information.
10) Click **[Apply]** button to save the settings.

Failure/Warning e-mails are formatted as follows:

Subject line	: <Mail title>	<Projector name>
Text	: <Mail text>	
	Date	<Failure/Warning date>
	Time	<Failure/Warning time>
	IP Address	<Projector IP address>
	MAC Address	<Projector MAC address>

4.3 Projector Management using SNMP

The SNMP (Simple Network Management Protocol) enables to manage the projector information, which is a failure or warning status, from the computer on the network. The SNMP management software will be required on the computer to use this function.

NOTE • It is recommended that SNMP functions be carried out by a network administrator.
• SNMP management software must be installed on the computer to monitor the projector via SNMP.

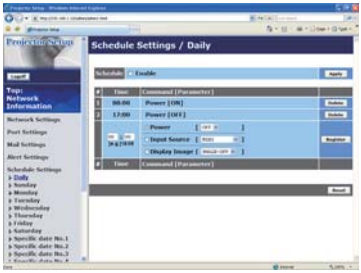
SNMP Settings (📖71)

Configure the following items via a web browser to use SNMP.

Example: If the IP address of the projector is set to **192.168.1.10:**
1) Enter **"http://192.168.1.10/"** into the address bar of the web browser.
2) Enter the Administrator ID and Password and click **[Logon]**.
3) Click **[Port Settings]** on the main menu.
4) Click **[Enable]** check box to open the **SNMP Port**. Set the IP address to send the SNMP trap to when a Failure/Warning occurs.
5) Click **[Security Settings]** on the main menu.
6) Click **[SNMP]** and set the community name on the screen that is displayed.
7) Configure the settings for Trap transmission of Failures/Warnings. Click **[Alert Settings]** on the main menu and select the Failure/Warning item to be configured.
8) Click **[Enable]** check box to send out the SNMP trap for Failures/Warnings. Clear **[Enable]** check box when SNMP trap transmission is not required.
9) Click **[Apply]** button to save the settings.

4.4 Event Scheduling

The scheduling function enables to setup scheduled events including power on / power off. It enables to be “self-management” projector.



NOTE • You can schedule the following control events: Power ON/OFF, Input Source and Transferred Image Display.
• The power on / off event has the lowest priority among the all events that are defined at the same time.
• There are 3 types of Scheduling, 1) daily 2) weekly 3) specific date. (📖75)
• The priority for scheduled events is as follows 1) specific date 2) weekly 3) daily.
• Up to five specific dates are available for scheduled events. Priority is given to those with the lower numbers when more than one event has been scheduled for the same date and time (e.g., ‘Specific day No. 1’ has priority over ‘Specific day No. 2’ and so on.
• Be sure to set the date and time before enabling scheduled events. (📖77)

4.4 Event Scheduling (Continued)

Schedule Settings (📖75)

Schedule settings can be configured from a web browser.

Example: If the IP address of the projector is set to **192.168.1.10:**
1) Enter **"http://192.168.1.10/"** into the address bar of the web browser.
2) Enter the Administrator ID and password and click **[Logon]**.
3) Click **[Schedule Settings]** on the main menu and select the required schedule item. For example, if you want to perform the command every Sunday, please select **[Sunday]**.
4) Click **[Enable]** check box to enable scheduling.
5) Enter the date (month/day) for specific date scheduling.
6) Click **[Apply]** button to save the settings.
7) After configure the time, command and parameters, click **[Register]** to add the new event.
8) Click **[Delete]** button when you want to delete a schedule.

There are three types of scheduling.
1) Daily: Perform the specified operation at a specified time every day.
2) Sunday ~ Saturday: Perform the specified operation at the specified time on a specified day of the week.
3) Specific date: Perform the specified operation on the specified date and time.

NOTE • In Standby mode the power indicator will flash green for approx. 3 seconds when at least 1 "Power ON" schedule is saved.
• When the schedule function is used, the power cord must be connected to the projector and the outlet and the power switch must be turned on, [|]. The schedule function does not work when the power switch is turned off, [O] or the breaker in a room is tripped. The power indicator will lights orange or green when the projector gets is receiving the power.

4.4 Event Scheduling (Continued)

Date/Time Settings (📖77)

The Date/Time setting can be adjusted via a web browser.

Example: If the IP address of the projector is set to **192.168.1.10:**
1) Enter **"http://192.168.1.10/"** into the address bar of the web browser.
2) Enter the Administrator ID and Password and click **[Logon]**.
3) Click **[Date/Time Settings]** on the main menu and configure each item. Refer to the item **4.1.8 Data/Time Settings** for further information.
4) Click **[Apply]** button to save the settings.

NOTE • The battery for the built in clock may be dead if the clock loses time even when the date and time have been set correctly. Replace the battery by following the instructions on replacing the battery.
(📖***Internal clock battery in the User's Manual (concise)***)
• The internal clock's time may not remain accurate. Using SNTP is recommended to maintain accurate time.

4.5 MY IMAGE (Still Image Transfer) Display

The projector can display a still image in an SD memory card or USB memory that is transferred via the network. (Fig. 4.5)

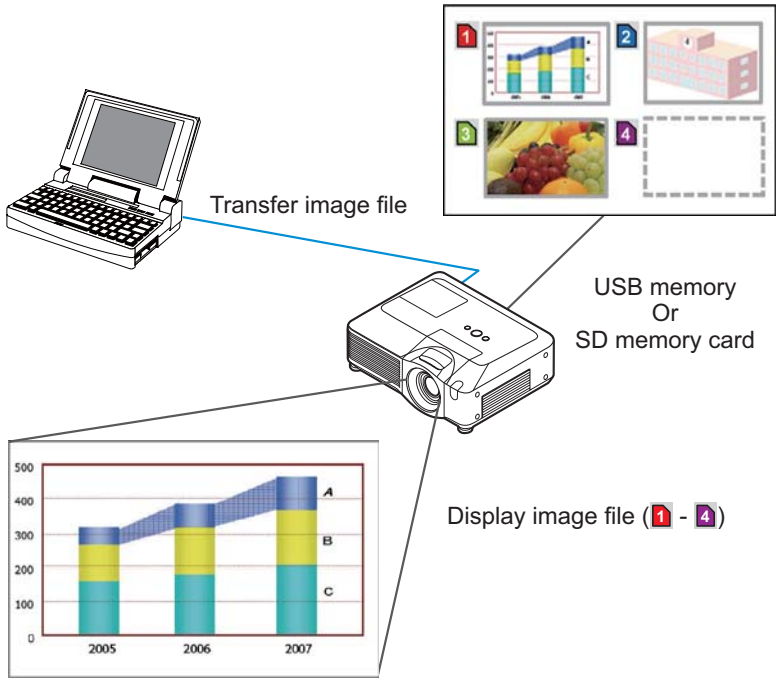


Fig. 4.5 Still Image Transfer

MY IMAGE transmission requires an exclusive application for your PC. You can download it from the Hitachi web site (http://hitachi.us/digitalmedia or http://www.hitachidigitalmedia.com). Refer to the manual for the application for instructions.

To display the transferred image, select the MY IMAGE item in the MIU menu. For more information, please see the description of the MY IMAGE item of the MIU menu. (📖 ***MIU menu in User's Manual (detailed) – Operating Guide***)

NOTE • Supported file types are JPEG, Bitmap and PNG.
• It is possible to allocate the image file up to 4 in the maximum.
• The image file also can be displayed by using schedule function from the web browser. Refer to the item ***4.4 Event Scheduling*** (📖***93***) in detail.

4.6 Command Control via the Network

You can configure and control the projector via the network using RS-232C commands.

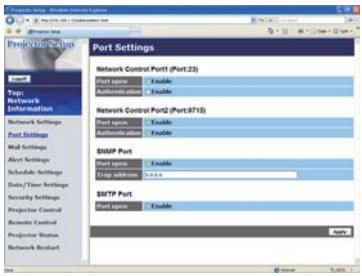
Communication Port

The following two ports are assigned for the command control.
TCP #23
TCP #9715

Command Control Settings (📖71)

Configure the following items from a web browser when command control is used.

Example: If the IP address of the projector is set to **192.168.1.10:**
1) Enter **"http://192.168.1.10/"** into the address bar of the web browser.
2) Enter the Administrator ID and password and click **[Logon]**.
3) Click **[Port Settings]** on the main menu.



4) Click **[Enable]** check box to open **Network Control Port1 (Port: 23)** to use TCP #23. Click **[Enable]** check box for **[Authentication]** setting when authentication is required, otherwise clear the check box.
5) Click **[Enable]** check box to open **Network Control Port2 (Port: 9715)** to use TCP #9715. Click **[Enable]** check box for **[Authentication]** setting when authentication is required, otherwise clear the check box.
6) Click **[Apply]** button to save the settings.

4.6 Command Control via the Network (Continued)

When the authentication setting is enabled, the following settings are required. (📖79)

7) Click **[Security Settings]** on the main menu.
8) Click **[Network Control]** and enter the desired authentication password.
   * See NOTE.
9) Click **[Apply]** button to save the settings.

NOTE • The Authentication Password will be the same for Network Control Port1 (Port: 23), Network Control Port2 (Port: 9715).

4.6 Command Control via the Network (Continued)

Command Format

Command formats differ among the different communication ports.

- TCP #23
  You can use the RS-232C commands without any changes. The reply data format is the same as the RS-232C commands. However, the following reply will be sent back in the event of authentication failure when authentication is enabled.

  <Reply in the event of an authentication error>

Reply	Error code	
0x1F	0x04	0x00

- TCP #9715

  Send Data format

  The following formatting is added to the header (0x02), Data length (0x0D), Checksum (1byte) and Connection ID (1 byte) of the RS-232C commands.

Header	Data length	RS-232Ccommand	Check Sum	Connection ID
0x02	0x0D	13 bytes	1 byte	1 byte

Header → 0x02, Fixed
Data length → RS-232C commands byte length (0x0D, Fixed)
RS-232C command → RS-232C commands that start with 0xBE 0xEF (13 bytes)
Check Sum → This is the value to make zero on the addition of the lower 8 bits from the header to the checksum.
Connection ID → Random value from 0 to 255 (This value is attached to the reply data)

4.6 Command Control via the Network (Continued)

Reply Data format

The connection ID (the data is same as the connection ID data on the sending data format) is attached to the RS-232C commands reply data.

<ACK reply>

Reply	Connection ID
0x06	1 byte

<NAK reply>

Reply	Connection ID
0x15	1 byte

<Error reply>

Reply	Error code	Connection ID
0x1C	2 bytes	1 byte

<Data reply>

Reply	Data	Connection ID
0x1D	2 bytes	1 byte

<Projector busy reply>

Reply	Status code	Connection ID
0x1F	2 bytes	1 byte

<Authentication error reply>

Reply	Authentication Error code		Connection ID
0x1F	0x04	0x00	1 byte

4.6 Command Control via the Network (Continued)

Automatic Connection Break

The TCP connection will be automatically disconnected after there is no communication for 30 seconds after being established.

Authentication

The projector does not accept commands without authentication success when authentication is enabled. The projector uses a challenge response type authentication with an MD5 (Message Digest 5) algorithm.
When the projector is using a LAN, a random 8 bytes will be returned if authentication is enabled. Bind this received 8 bytes and the Authentication Password and digest this data with the MD5 algorithm and add this in front of the commands to send.

Following is a sample if the Authentication Password is set to “password” and the random 8 bytes are “a572f60c”.

1) Select the projector.
2) Receive the random 8 bytes “a572f60c” from the projector.
3) Bind the random 8 bytes “a572f60c” and the Authentication Password “password” and it becomes “a572f60cpassword”.
4) Digest this bind “a572f60cpassword” with MD5 algorithm.
   It will be “e3d97429adffa11bce1f7275813d4bde”.
5) Add this “e3d97429adffa11bce1f7275813d4bde” in front of the commands and send the data.
   Send “e3d97429adffa11bce1f7275813d4bde”+command.
6) When the sending data is correct, the command will be performed and the reply data will be returned. Otherwise, an authentication error will be returned.

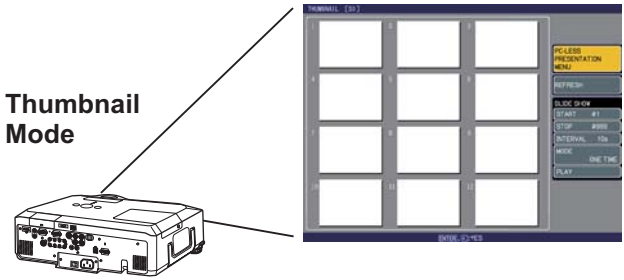
NOTE • As for the transmission of the second or subsequent commands, the authentication data can be omitted when the same connection.

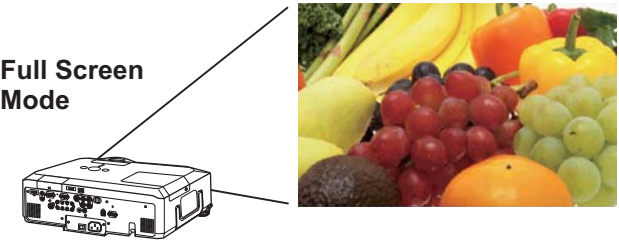
5. PC-LESS Presentation

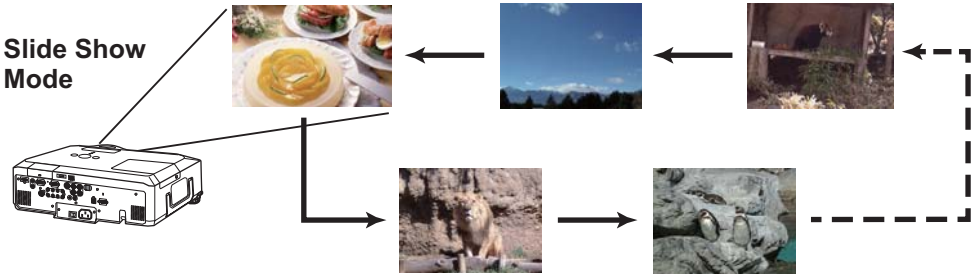
5.1 Outline of the PC-LESS Presentation

The PC-LESS Presentation reads image data from storage media inserted into SD CARD slot or AUX I/O port and displays the image on the following modes. The PC-LESS Presentation can be operated on the OSD menu in the projector screen or via a web browser software in your PC connected to the projector through the network.
The feature allows you to make your presentation without your PC.

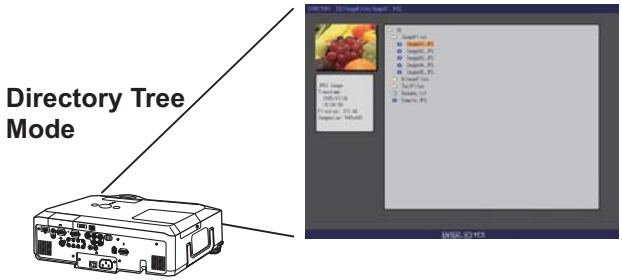
- Thumbnail Mode (📖*104*)
- Full Screen Mode (📖*108*)
- Slide Show Mode (📖*110*)
- Directory Tree View (📖*112*)







5.1 Outline of the PC-LESS Presentation (continued)



[Supported storage media]

- SD memory card
- USB memory (USB memory type, USB hard disk and USB card reader type)

NOTE • USB memory reader (adapter) that has more than 1 USB slot is not supported (if the adapter is acknowledged as multiple devices connected).
• USB hub is not supported.
• Security USB memory is not supported.
• Some SD memory cards and USB memories may not work correctly.
• SDHC (4GB etc) SD memory card is not supported. Up to 2GB card is supported.
• SD memory and the wireless network card (option) cannot be inserted at the same time.
• Be careful to insert and remove SD memory card and USB memory.
(📖 ***Using a USB storage/Using an SD card in the User's Manual (concise)***)

[Supported format]

- FAT12, FAT16 and FAT32

NOTE • NTFS is not supported.

[Supported file format]

- JPEG (.jpeg, .jpg) * Progressive is not supported.
- Bitmap (.bmp) * 16bit mode and compressed bitmap is not supported.
- PNG (.png) * Interlace PNG is not supported.
- MPEG4 (.mp4) * Supported bit resolution rate is less than 1Mbps in Simple Profile.
  Supported resolution is less than VGA.
  Supported Audio format is only AAC.

5.2 Thumbnail mode

The Thumbnail mode displays the images stored in an SD or USB storage media in thumbnail screen. Maximum 12 images are displayed in a screen.
If you wish, you can jump into the Full Screen Mode or Slide Show mode, after you select some images in the Thumbnail mode.

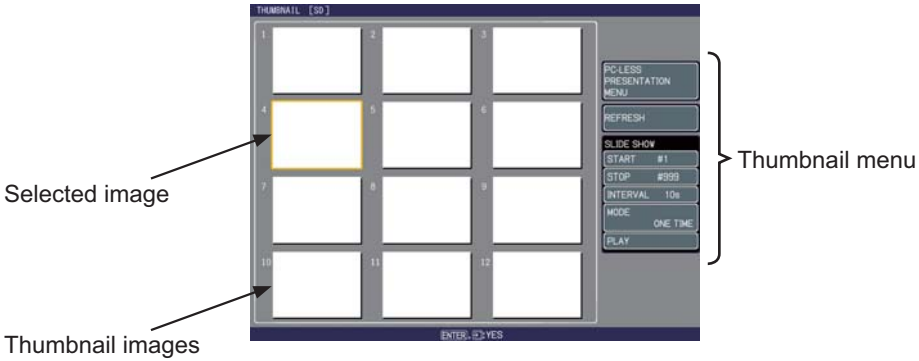


Fig. 5.2 Thumbnail Mode

5.2.1 Starting the Thumbnail mode

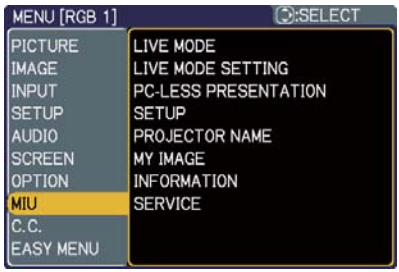
The Thumbnail mode can be started from the OSD menu in the projector or from a web browser software on your PC.

from the OSD menu

1) Save JEPG or other supported files (📖*103*) into root directory in a SD or USB storage media.
2) Insert the SD memory card into the SD card slot on the projector or the USB memory into the AUX I/O port on the projector. (📖 ***Using a USB storage/ Using an SD card in the User's Manual (concise)***)
3) Press the MENU button on the remote control or the ▲/▼/◄/► buttons on the projector to show the menu on screen.
4) Use the ▲/▼ cursor buttons to select the Advanced Menu, and use the ► cursor button to enter the item.
5) Use the ▲/▼ cursor buttons to select the MIU, and use the ► cursor button to enter the item.

5.2 Thumbnail mode (continued)

6) Use the ▲/▼ cursor buttons to select the PC-LESS PRESENTATION, and push the ► cursor button.



7) Use the ▲/▼ cursor buttons to select the THUMBNAIL, and push the ► cursor button to perform it. The picture in Fig. 5.2 will be on screen.

from a web browser software

1) Save JEPG or other supported files (📖*103*) into root directory in a SD or USB storage media.
2) Insert the SD memory card into the SD card slot on the projector or the USB memory into the AUX I/O port on the projector. (📖 ***Using a USB storage/ Using an SD card in the User's Manual (concise)***)
3) Connect the projector and your PC through the network. (📖*11* or 📖*16* or 📖*26*)
4) Start a web browser software and logon to the projector. (📖*67*)
5) Select the Remote Control in the main menu to have the Remote Control screen on your PC.

6) Select the THUMBNAIL and click it. The picture in Fig. 5.2 will be on screen.

5.2 Thumbnail mode (continued)

5.2.2 Operating by buttons or keys

You can control the images in the thumbnail screen with the remote control or keypad or a web browser software. The following functions can be supported while the thumbnail is displayed.

Button operation			Functions
The remote control	The keypad on the projector	Web Remote in web browser software.	
▲/▼/◄/►	▲/▼/◄/►	UP/DOWN/LEFT/RIGHT	Move cursor
PAGE UP PAGE DOWN	-	PAGE UP PAGE DOWN	Switches pages
ENTER	INPUT	ENTER	Displays selected image on full screen
MENU	-	MENU	Displays PC-LESS PRESENTATION menu

* These operations are not accessible while the projector OSD menu is displayed.

NOTE • The Thumbnail mode shows 12 pictures in 1 page as maximum.
• It is not possible to change the input port by INPUT button when THUMBNAIL, SLIDE SHOW, or DIRECTORY is displayed.
• Display the projector OSD menu before changing the input port.
• Some error Icons will be displayed in thumbnail.

This file seems to be broken or not supported format.

The file name exists in the playlist file (📖*116*), but the actual file does not exist anywhere.

5.2 Thumbnail mode (continued)

5.2.3 Operation on the Thumbnail menu

At the right side of the Thumbnail screen, you can find the Thumbnail menu.

1) PC-LESS PRESENTATION MENU:
   Move the cursor to the PC-LESS PRESENTATION menu, and push the ► cursor button on the remote control or projector, or **[RIGHT]** on the Web Remote Control. The PC-LESS PRESENTATION menu will be displayed.
2) REFLESH:
   Move the cursor to the REFLESH, and push the ► cursor button on the remote control or projector, or **[RIGHT]** on the Web Remote Control. Then, the warning message for the REFRESH will be displayed. The Refresh is a function to initialize the playlist. (🕮*116*) If you initialize it, the thumbnail screen is renewed and the images are back to the original condition.

   To initialize it, push the ENTER on the remote control or Web Remote Control, or INPUT on the projector. To escape to the Thumbnail menu, push the ESC on the remote control or the ◄ key on the projector or the **[LEFT]** button on the Web Remote Control.

NOTE • If you initialize it, the setting for the Slide show and the rotation setting for images will be initialized as well.
• If the storage media is protected, the playlist cannot be initialized.
• If the storage media does not have the space to store the new playlist file, the playlist cannot be initialized.
• For other functions in the menu, refer to the Slide Show. (🕮*110*)

5.3 Full Screen Mode

The Full Screen Mode (Fig. 5.3) shows a full display image. To make full screen display, press the ENTER button on remote control or the INPUT button on Keypad or click **[ENTER]** button in the Web Remote Control when the image file is selected on the Thumbnail Mode or Directory Tree View.

Fig. 5.3 Full Screen Mode

The following functions can be supported in the Full screen mode.

Button operation *1)			Functions
The remote control	The keypad on the projector	Web Remote in web browser software.	
▲/▼ or ◄/► *2)	▲/▼ or ◄/► *2)	UP/DOWN or LEFT/RIGHT *2)	• Rotates image 90 degrees clockwise or anticlockwise. Once image is rotated, the angle information is kept in the playlist even though the mode is switched to other. (Thumbnail or Slide Show Mode) To return the original, rotate the image back to the initial angle or erase the playlist file in memory card. (🕮116) • Moves the slide forward or backward
ENTER	INPUT	ENTER	(from Thumbnail Mode) Displays thumbnail.
MENU	-	MENU	Displays PC-LESS PRESENTATION menu.

*1) These operations are not accessible while the projector OSD menu is displayed.
*2) The function for the pair of keys is selected on the KEY CONFIG. menu (🕮109)

NOTE • It is not possible to change the input port by INPUT button of keypad when displaying the THUMBNAIL, SLIDE SHOW, or DIRECTORY.
• Display the projector OSD menu before changing the input port.
• Image might not be displayed properly at the beginning or end of MP4 file playback.

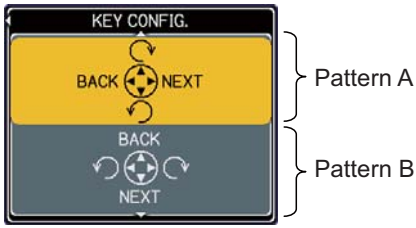
5.3 Full Screen Mode (continued)

You can display the image file with your desired size.
1) Select the DISPLAY SIZE in PC-LESS PRESENTATION menu.
2) Press the ENTER button on the remote control or ► button on the Keypad or RIGHT button on the Web Remote Control.

3) Then DISPLAY SIZE menu appears.

4) Select your desired DISPLAY SIZE.
• REAL : Displays the image at original size. Displays the image at the center of screen if original size is smaller than the screen size.
Displays only center of the image if original size is larger than the screen size.
• NORMAL : Displays the image for the maximum size on the screen, and keeps original aspect.
• FULL : Displays the image at the full size screen. Original aspect will be changed to full size display.
The animation file is always played at VGA mode if resolution is larger than VGA.
The animation file is always played at the center of screen if resolution is smaller than VGA.

You can select the KEY configuration from 2 preset pattern assigned to ▲/▼/◄/► keys on Tumbnail Mode.
1) Select the KEY CONFIG. in PC-LESS PRESENTATION menu.
2) Press ► button.
3) The KEY CONFIG. menu appears.



4) Select the KEY CONFIG. pattern.
• pattern A : ◄ : previous image ► : next image
▲ : rotation to right ▼ : rotation to left
• pattern B : ◄ : rotation to left ► : rotation to right
▲ : previous image ▼ : next image

5.4 Slide Show Mode

You can play the Slide show with the projector menu. Select the SLIDE SHOW on PC-LESS PRESENTATION menu and press the ENTER / ► button on the remote control or ► button on Keypad. Then Slide show will start.

You can also play the Slide show by clicking **[SLIDE SHOW]** button in the Web Remote Control.

The Slide Show Mode (Fig. 5.4) displays a full screen image and switches the images at intervals set in the Display time. The Display time can be set by the Playlist (📖*116*) and menu. (📖*111*)

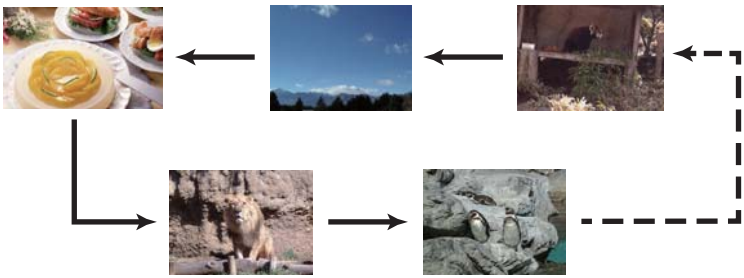


Fig. 5.4 Slide Show Mode

The following operations can be accessible while the Slide show is displayed.

Button operation			Functions
The remote control	The keypad on the projector	Web Remote in web browser software.	
ENTER	INPUT	ENTER	Displays thumbnail.
MENU	-	MENU	Displays PC-LESS PRESENTATION menu.

* These operations are not accessible while the projector OSD menu is displayed.

NOTE • It is impossible to change the input port by the INPUT button if the THUMBNAIL, SLIDE SHOW, or DIRECTORY is displayed.
• Display the projector OSD menu before changing the input port .
• Images can be displayed when it is recorded in the playlist.
• Image can not be displayed in the thumbnail if it is not recorded in the playlist. (📖*116*)
• When the SLIDE SHOW mode is set to ONE TIME, the last slide of the presentation will be held on screen till the ENTER button on the remote control or Web Remote Control, or INPUT button on the projector is pushed.

5.4 Slide Show Mode (continued)

You can play the Slide show at your desired configuration.
Configure the SLIDE SHOW items in THUMBNAIL.

1) START # : Set the beginning number of the Slide show.
2) STOP # : Set the end number of the Slide show.
3) INTERVAL : Set the interval time of the Slide show.
4) MODE : Select the Slide show mode.
   ONE TIME : Play the Slide show one time.
   ENDLESS : Play the Slide show endless.
5) PLAY : Play the Slide show.
   It is not recommend to set the interval time very short something like several seconds, because it may take more than several seconds to read and display an image file if it is stored in very deep layer directory or if so many files are stored in the same directory.

NOTE • The settings of the Slide Show are saved to the **"slidemode.txt"** file that is stored in the storage media. If the file is not existed, it is generated automatically.
• The START #, STOP #, INTERVAL, and MODE are set by thumbnail menu once, this setting has more priority than the Playlist.
• If the storage media is under the write protection or the **"slidemode.txt"** is the read only type file, it is impossible to change the settings of the Slide Show.
• If you would like to release the priority, delete the **"slidemode.txt"** file from directory.

5.5 Directory Tree View

You can display the directory with the projector menu. Select the DIRECTORY on the PC-LESS PRESENTATION menu. And press the ENTER / ► button on the remote control or ► button on Keypad. Then directory will be displayed.

You can also display the directory by clicking **[DIRECTORY]** button in the Web Remote Control.

The Directory Tree View (Fig. 5.5) displays all folders and files (includes un-supported format file) in the memory card as a tree view.
The preview image is shown on the top left corner on the directory tree view. In case of movie file, an initial flame is displayed as preview. No preview is displayed if a folder or un-supported format file is selected.
If the displayable file is selected and the ENTER button on remote control is pressed, it turns into the full screen image.
If the directory is selected and the ENTER button on remote control is pressed, it turns into the thumbnail view of selected folder.

You can also display the full screen image or the thumbnail view by clicking **[ENTER]** button in the Web Remote Control.

Fig. 5.5 Directory Tree View

5.5 Directory Tree View (continued)

The following operations can be accessible while directory is displayed.

Button operation			Functions
The remote control	The keypad on the projector	Web Remote in web browser software.	
▲/▼	▲/▼	UP/DOWN	Moves selected item upward or downward.
►	►	RIGHT	Opens the closed folder.
◄	◄	LEFT	Closes the folder.
PAGE UP PAGE DOWN	-	PAGE UP PAGE DOWN	Switches pages if the whole directory tree view cannot be displayed.
ENTER	INPUT	ENTER	Displays a selected file as a preview in full screen. The un-supported format file cannot be opened. If the preview is displayed and Enter button is pressed, it returns to the directory tree view. If the directory (folder) is selected, it turns into Thumbnail Mode.
MENU	-	MENU	Displays the menu.

* These operations are not accessible while projector OSD menu is displayed.

NOTE • It is not possible to change the input port by INPUT button when THUMBNAIL, SLIDE SHOW, or DIRECTORY is displayed.
• Display the projector OSD menu before changing the input port .
• Only alphanumeric characters can be used for directory name and file name.
• This Directory Tree View is able to show up to 10 layers depth. The files and folders that located on more than 10th layer cannot be shown. Some files and directories are not displayed if there are too many. In this case, delete some files in the directory or some directories in the memory card.

5.5 Directory Tree View (continued)

[File information display]

In the Directory Tree View screen, the following information is shown as the File information.

Picture file (still picture)

- File format (“JPEG Image”, “PNG Image” or “BMP Image”)
- Time stamp (When file is created)
- File size (Size of File)
- Image size (File resolution)

Movie file (motion picture)

- File format (“MP4 Movie”)
- Time stamp (When file is created)
- File size (Size of File)
- Movie size (File resolution)
- Movie time (Play time)

Un-supported format file

- File format (“File”)
- Time stamp (When file is created)
- File size (Size of File)

Directory

- File format (“Directory”)
- Time stamp (When directory is created)

5.6 “PC-LESS Presentation” error message

Error message is displayed at a specific condition while “PC-LESS Presentation” mode. It appears at the bottom and the gray area of screen.

Fig. 5.6 “PC-LESS Presentation” error message

“PC-LESS Presentation” error message list

Error message	Error content	Display mode
File is not found.	Displayable file does not exist.	The Full Screen Mode (from Thumbnail Mode) and Side Show Mode
Illegal Playlist file.	The Playlist file has malfunction. (Over 64kB file, over 1022 characters per line in file or linefeed code malfunction)	The Slide Show Mode

5.7 Playlist

The Playlist is a DOS format text file, which decides the order of displayed still image files or moving image files in the thumbnail or the slide show.
The playlist file name is **"imagelistdir.txt"**. It is created in each folder when the PC-LESS Presentation is displayed. The timing of playlist creation is when PC-LESS Presentation is displayed in the directory, which any playlist file does not exist. The playlist is created in the displayed directory.

The playlist is editable on the PC. Display time and rotation information at the slide show can be set based on specifying settings. Of course it is possible to make certain file image undisplayable in a playlist deleting 1 line relating to the file from playlist. Also, it is possible to see added picture image based on adding picture image file name and pass name of destination to save in playlist.

[Example of adding image file]
(Pass name/pass name/…/file name, display time, rotation information)
images/photo1/img001.jpg
images/photo1/img002.jpg, 2000
images/photo1/img003.jpg, 500, rot1
images/photo1/img004.jpg
images/photo1/img005.jpg, 500, rot2

The number after the extension is the slide show display time. It can be set between 0 and 999900. (ms) Least input increment is 100 ms. The end of display time means rotation information. 90 degrees clockwise rotation becomes rot1, rot2 and rot3. (When no rotation, not specify or specify rot0.)
Display time and rotation information should be used "," for separation.

⚠**CAUTION** • Maximum characters for the playlist in 1 line at playlist is 1024 including linefeed. If it exceeds, playlist becomes invalid and error.
• Playlist maximum size is 64kB. If it exceeds, it becomes invalid.
• Playlist can register up to 999 image files. If it exceeds, first 999 files can be utilized.
• When image file is added to the memory card and be able to see on the screen, delete existing playlist in the memory card.

6. Troubleshooting

Problem			Likely Cause	Things to Check	Reference Page Number
No image			The projector is not turned on.	Is the projector's lamp on?	*17
			The projector's input source isn't switched to MIU.	Is the projector switched to MIU?	*18
Wireless / Wired	Live Mode	The projector that you want to connect to is nowhere to be found on the list of available projectors	The PC and/or projector's network settings are not configured correctly.	Check both the PC and projector's network settings. If you change the projector' s settings, turn off the projector's AC power and then turn it on again. If you simply put the projector in STANDBY power mode and then turn it on again, the new settings might not take effect.	10
			Weak radio signal	• Bring the PC and projector closer together. • Radio waves won't go through concrete and metal (steel doors, etc.)	–
		Can't communicate	The Projector isn't in Live Mode	Check the mode on MIU menu to make sure that it is in the correct mode.	*55
			WPA-PSK or/and WPA2-PSK is not configure correctly in Windows 2000.	In Windows 2000,WPA-PSK and WPA2-PSK could not configure via LiveViewer 3. Use wireless configuration utility with PC or wireless adapter. Please refer the manual of your configuration utility.	–
			Cannot communicate due to configure wireless / encryption settings	If there is a wireless configuration utility loaded on your PC, check the configuration settings of it. Please refer the manual of your configuration utility.	–
			Configuration network settings of LiveViewer may not be set correctly.	Be sure that the configuration settings of LiveViewer are correct for usage with your PC or wireless adapter.	10

(continued on next page)

* User's Manual (detailed) - Operating Guide

6. Troubleshooting (Continued)

Problem			Likely Cause	Things to Check	Reference Page Number
Wireless / Wired	Live Mode	The projected image is rather slow compared to that of the PC	The projector isn't capable of relaying dynamic images such as PowerPoint® animation at full speed.	Switching the priority to 'Transmission Speed' under the options menu may help to improve speed.	58
			The compression rate being used for transferring the images is too low.	Switching the priority to 'Transmission Speed' under the options menu may help to improve speed.	58
		No Image	Using Photo Gallery Slide Show in Windows Vista.	LiveViewer 3 cannot send PC screen data while using Windows Vista Photo Gallery Slide Show. Please close Photo Gallery Slide Show before using LiveViewer 3.	–
		Images contain lots of interference.	The compression rate being used for transferring the images is too high.	Try setting the priority to 'Image Quality' in the LiveViewer 3 Option menu. You may experience a drop in speed.	58
		Two cursors appear	Cursor of the PC and cursor of the projector are displayed coming in succession.	Turn off the cursor Emulation of "Live Viewer 3" option.	58
		No cursor appears	Some PCs do not display the cursor in "Live Viewer 3".	Turn on the cursor Emulation of "Live Viewer 3" option.	58
		Neither transparency nor translucency effects (Glass)	Using LiveViewer 3 with Windows Aero mode.	LiveViewer 3 does not support these features of Windows Vista Aero.	–

(continued on next page)

6. Troubleshooting (Continued)

Problem		Likely Cause	Things to Check	Reference Page Number
PC-LESS	No information is shown after mass storage device is set on Thumbnail or Directory mode.	The mode setting is not renewed after the device is set.	Select either Thumbnail mode or Directory mode again, showing PC-LESS Presentation menu.	104, 112
Wireless	Can't communicate	The wireless network card isn't inserted into the projector or the memory card is still inserted.	Insert the wireless network card that came with your projector into the module.	*12
		There is closely another projector or other that has the same wireless setting.	Try changing of SSID and IP Address.	70 *60
Wired LAN	Can't communicate	The PC and/or projector's network settings are not configured correctly.	Check both the PC and projector's network settings.	11-14, 41
		The wireless network card is inserted into the projector.	Remove the SD wireless network card from the projector (you can't use both wireless and wired LAN connections at the same time).	*58
Others - Information from the projector to PC is not correct or completed - The projector does not respond - Image on screen is frozen.		Communication between the projector and PC is not working well. MIU Functions of the projector is not working well.	Try "MIU RESTART" in SERVICE menu under the MIU menu.	*63

* User's Manual (detailed) - Operating Guide

7. Specifications

Item	Specifications
File format	JPEG, PNG, Bitmap and MPEG4
Control software	Dedicated PC application and Web browser
Corresponding protocol	TCP/IP, DHCP client and HTTP server
Network	Wireless LAN (IEEE802.11b/g) (Ad-Hoc and Infrastructure modes) Ethernet (100Base-TX/10Base-T)
Security	WEP (64/128bit), WPA-PSK/PSK2 (TKIP/AES), SSID
PC application operational environment	OS: Windows 2000 Professional (Service Pack4) Windows XP Home Edition Windows XP Professional Windows Vista Home Basic (32bit) Windows Vista Home Premium (32bit) Windows Vista Business (32bit) Windows Vista Enterprise (32bit) Windows Vista Ultimate (32bit) CPU: Pentium III 600MHz or more is recommended. Memory size: 64MB or more, 128MB or more in case of XP Video RAM: 4MB required (8MB recommended) HDD: 20MB CD-ROM drive Web browser: Internet Explorer 5.5 or later
SD Memory Card	SD Memory Card (Corresponding card is not confirmed yet.)
Wireless network card	C-guys SD-Link11g
USB	USB1.0 host mass storage class SBC/BOT type Following USB memories can be read/written. - USB memory type - Card reader type (Corresponding card is not confirmed yet.)

8. Warranty and after-sales service

If a problem occurs with the equipment, please read “6. Troubleshooting” (📖*117*) section first and review all suggested check points. After that, please contact your dealer or service company, if you still have the problem. They will tell you what warranty condition is applied.

Projector

CP-X809W

User's Manual – Operating Guide

Technical

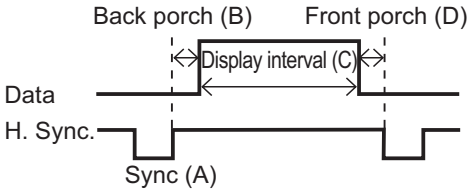
Example of computer signal

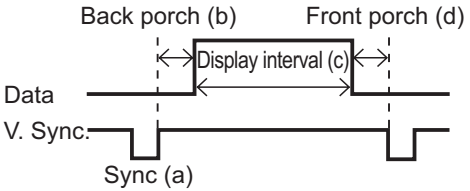
Resolution (H x V)	H. frequency (kHz)	V. frequency (Hz)	Rating	Signal mode
720 x 400	37.9	85.0	VESA	TEXT
640 x 480	31.5	59.9	VESA	VGA (60Hz)
640 x 480	37.9	72.8	VESA	VGA (72Hz)
640 x 480	37.5	75.0	VESA	VGA (75Hz)
640 x 480	43.3	85.0	VESA	VGA (85Hz)
800 x 600	35.2	56.3	VESA	SVGA (56Hz)
800 x 600	37.9	60.3	VESA	SVGA (60Hz)
800 x 600	48.1	72.2	VESA	SVGA (72Hz)
800 x 600	46.9	75.0	VESA	SVGA (75Hz)
800 x 600	53.7	85.1	VESA	SVGA (85Hz)
832 x 624	49.7	74.5		Mac 16” mode
1024 x 768	48.4	60.0	VESA	XGA (60Hz)
1024 x 768	56.5	70.1	VESA	XGA (70Hz)
1024 x 768	60.0	75.0	VESA	XGA (75Hz)
1024 x 768	68.7	85.0	VESA	XGA (85Hz)
1152 x 864	67.5	75.0	VESA	1152 x 864 (75Hz)
1280 x 960	60.0	60.0	VESA	1280 x 960 (60Hz)
1280 x 1024	64.0	60.0	VESA	SXGA (60Hz)
1280 x 1024	80.0	75.0	VESA	SXGA (75Hz)
*1280 x 1024	91.1	85.0	VESA	SXGA (85Hz)
*1600 x 1200	75.0	60.0	VESA	UXGA (60Hz)
1280 x 768	47.7	60.0	VESA	W-XGA (60Hz)
1400 x 1050	65.2	60.0	VESA	SXGA+ (60Hz)
1280 x800	83.5	60.0	VESA	1280 x 800 (60Hz)

NOTE • Be sure to check jack type, signal level, timing and resolution before connecting this projector to a computer.
• Some computers may have multiple display screen modes. Use of some of these modes will not be possible with this projector.
• Depending on the input signal, full-size display may not be possible in some cases. Refer to the number of display pixels above.
• Although the projector can display signals with resolution up to UXGA (1600x1200), the signal will be converted to the projector’s panel resolution before being displayed. The best display performance will be achieved if the resolutions of the input signal and projector panel are identical.
• Automatic adjustment may not function correctly with some input signals.
• The image may not be displayed correctly when the input sync signal is a composite sync or a sync on G.
• The HDMI input does not support the signals marked with *.

Initial set signals

The following signals are used for the initial settings. The signal timing of some computer models may be different. In such case, adjust the items V POSITION and H POSITION in the IMAGE menu.

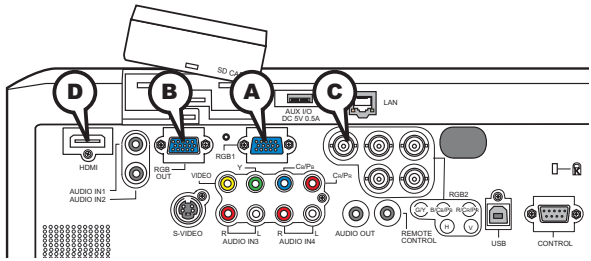




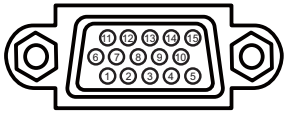
Computer/ Signal	Horizontal signal timing (µs)			
	(A)	(B)	(C)	(D)
TEXT	2.0	3.0	20.3	1.0
VGA (60Hz)	3.8	1.9	25.4	0.6
VGA (72Hz)	1.3	4.1	20.3	0.8
VGA (75Hz)	2.0	3.8	20.3	0.5
VGA (85Hz)	1.6	2.2	17.8	1.6
SVGA (56Hz)	2.0	3.6	22.2	0.7
SVGA (60Hz)	3.2	2.2	20.0	1.0
SVGA (72Hz)	2.4	1.3	16.0	1.1
SVGA (75Hz)	1.6	3.2	16.2	0.3
SVGA (85Hz)	1.1	2.7	14.2	0.6
Mac 16" mode	1.1	3.9	14.5	0.6
XGA (60Hz)	2.1	2.5	15.8	0.4
XGA (70Hz)	1.8	1.9	13.7	0.3
XGA (75Hz)	1.2	2.2	13.0	0.2
XGA (85Hz)	1.0	2.2	10.8	0.5
1152 x 864 (75Hz)	1.2	2.4	10.7	0.6
1280 x 960 (60Hz)	1.0	2.9	11.9	0.9
SXGA (60Hz)	1.0	2.3	11.9	0.4
SXGA (75Hz)	1.1	1.8	9.5	0.1
SXGA (85Hz)	1.0	1.4	8.1	0.4
UXGA (60Hz)	1.2	1.9	9.9	0.4
W-XGA (60Hz)	1.7	2.5	16.0	0.8
SXGA+ (60Hz)	1.2	2.0	11.4	0.7
1280 x 800(60Hz)	1.6	2.4	15.3	0.8

Computer/ Signal	Vertical signal timing (lines)			
	(a)	(b)	(c)	(d)
TEXT	3	42	400	1
VGA (60Hz)	2	33	480	10
VGA (72Hz)	3	28	480	9
VGA (75Hz)	3	16	480	1
VGA (85Hz)	3	25	480	1
SVGA (56Hz)	2	22	600	1
SVGA (60Hz)	4	23	600	1
SVGA (72Hz)	6	23	600	37
SVGA (75Hz)	3	21	600	1
SVGA (85Hz)	3	27	600	1
Mac 16" mode	3	39	624	1
XGA (60Hz)	6	29	768	3
XGA (70Hz)	6	29	768	3
XGA (75Hz)	3	28	768	1
XGA (85Hz)	3	36	768	1
1152 x 864 (75Hz)	3	32	864	1
1280 x 960 (60Hz)	3	36	960	1
SXGA(60Hz)	3	38	1024	1
SXGA (75Hz)	3	38	1024	1
SXGA (85Hz)	3	44	1024	1
UXGA (60Hz)	3	46	1200	1
W-XGA (60Hz)	3	23	768	1
SXGA+ (60Hz)	3	33	1050	1
1280 x 800(60Hz)	3	24	800	1

Connection to the ports



ⒶRGB 1, ⒷRGB OUT



D-sub 15pin mini shrink jack
• Video signal: RGB separate, Analog, 0.7Vp-p, 75Ω terminated (positive)
• H/V. sync. signal: TTL level (positive/negative)
• Composite sync. signal: TTL level

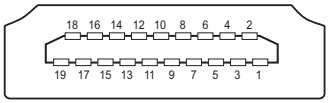
At RGB signal

Pin	Signal	Pin	Signal
1	Video Red	9	(No connection)
2	Video Green	10	Ground
3	Video Blue	11	(No connection)
4	(No connection)	12	Ⓐ: SDA (DDC data), Ⓑ : (No connection)
5	Ground	13	H. sync / Composite sync.
6	Ground Red	14	V. sync.
7	Ground Green	15	Ⓐ: SCL (DDC clock), Ⓑ : (No connection)
8	Ground Blue		

ⒸRGB 2(G/Y, B/C_B/P_B, R/C_R/P_R, H, V)

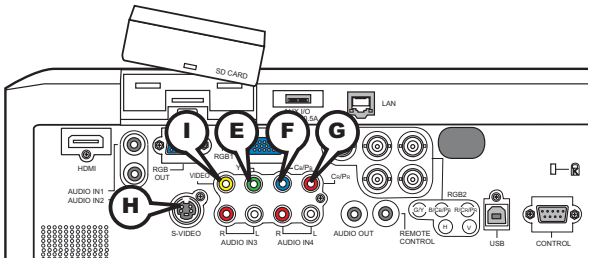
• BNC jack x 5
• Video : Analog 0.7Vp-p, 75Ω terminator
• H/V, sync, : TTL level (positive/negative)
• Composite sync, : TTL level

ⒹHDMI



• Type :Digital audio/video connector
• Audio signal : Linear PCM (Sampling rate; 32/44.1/48 kHz)

Pin	Signal	Pin	Signal	Pin	Signal
1	T.M.D.S. Data2 +	8	T.M.D.S. Data0 Shield	15	SCL
2	T.M.D.S. Data2 Shield	9	T.M.D.S. Data0 -	16	SDA
3	T.M.D.S. Data2 -	10	T.M.D.S. Clock +	17	DDC/CEC Ground
4	T.M.D.S. Data1 +	11	T.M.D.S. Clock Shield	18	+5V Power
5	T.M.D.S. Data1 Shield	12	T.M.D.S. Clock -	19	Hot Plug Detect
6	T.M.D.S. Data1 -	13	CEC		
7	T.M.D.S. Data0 +	14	Reserved(N.C. on device)		



COMPONENT VIDEO ⒺY, ⒻCB/PB, ⒼCR/PR

RCA jack x3

• System: 480i@60, 480p@60, 576i@50, 720p@50/60, 1080i@50/60,1080p@50/60

Port	Signal
Y	Component video Y, 1.0±0.1Vp-p, 75Ω terminator with composite sync
CB/PB	Component video CB/PB, 0.7±0.1Vp-p, 75Ω terminator
CR/PR	Component video CR/PR, 0.7±0.1Vp-p, 75Ω terminator

ⒽS-VIDEO

Mini DIN 4pin jack

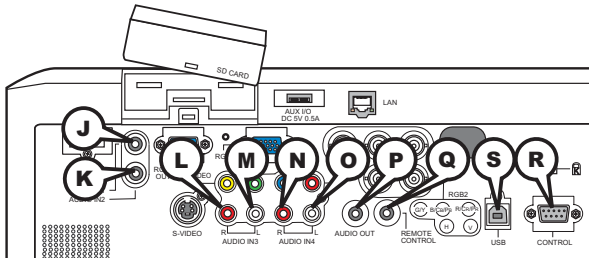
Pin	Signal
1	Color signal 0.286Vp-p (NTSC, burst), 75Ω terminator Color signal 0.300Vp-p (PAL/SECAM, burst) 75Ω terminator
2	Brightness signal, 1.0Vp-p, 75Ω terminator
3	Ground
4	Ground

ⒾVIDEO

RCA jack

• System: NTSC, PAL, SECAM, PAL-M, PAL-N, NTSC4.43

• 1.0±0.1Vp-p, 75Ω terminator



ⓙAUDIO IN 1, ⓚAUDIO IN 2

Ø3.5 stereo mini jack

• 500 mVrms 47kΩ terminator

AUDIO IN 3 ⓛR, ⓜL, AUDIO IN 4 ⓝR, ⓞL

RCA jack x2

• 500 mVrms 47kΩ terminator

ⓟAUDIO OUT

Ø3.5 stereo mini jack

• 500 mVrms 1kΩ output impedance

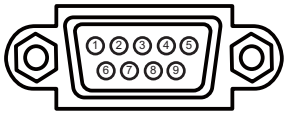
ⓠREMOTE CONTROL

Ø3.5 stereo mini jack

• To be connected with the remote control that came with the projector.

ⓡCONTROL

D-sub 9pin plug



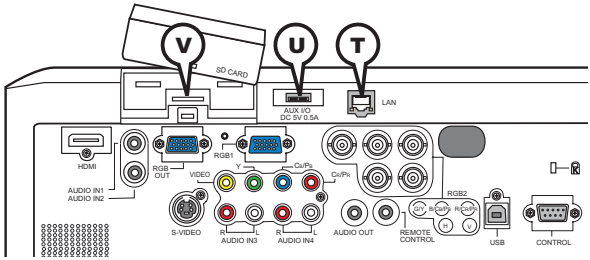
• About the details of RS-232C communication, please refer to the following RS-232C Communication in this manual.

Pin	Signal	Pin	Signal	Pin	Signal
1	(No connection)	4	(No connection)	7	RTS
2	RD	5	Ground	8	CTS
3	TD	6	(No connection)	9	(No connection)

ⓢUSB

USB B type jack

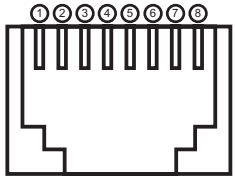
Pin	Signal
1	+5V
2	- Data
3	+ Data
4	Ground



ⓉLAN

RJ-45 jack

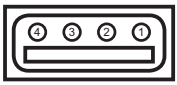
Pin	Signal	Pin	Signal	Pin	Signal
1	TX+	4	-	7	-
2	TX-	5	-	8	-
3	RX+	6	RX-		



ⓊAUX I/O

USB A type jack

Pin	Signal
1	+5V
2	- Data
3	+ Data
4	Gtound

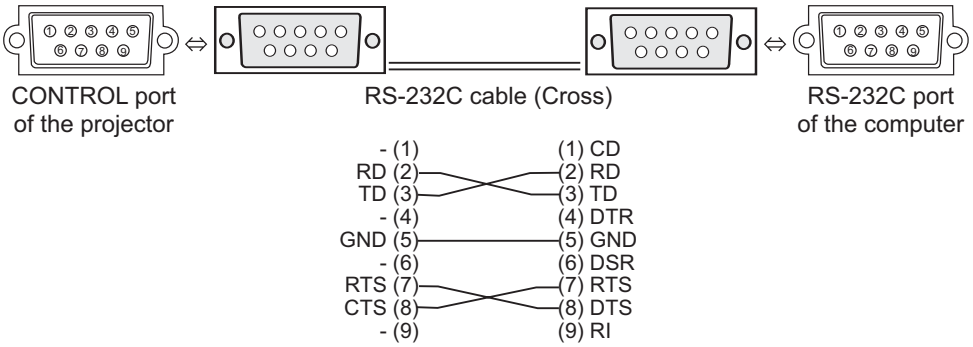


ⓋSD card slot

SD card slot

Pin	Signal	Pin	Signal	Pin	Signal
1	CD/DAT 3	4	VDD	7	DAT 0
2	CMD	5	CLK	8	DAT 1
3	VSS	6	VSS	9	DAT 2

RS-232C Communication



Connecting the cable

1. Turn off the projector and the computer.
2. Connect the CONTROL port of the projector with a RS-232C port of the computer by a RS-232C cable (cross). Use the cable that fulfills the specification shown in the previous page.
3. Turn the computer on, and after the computer has started up turn the projector on.

Communications setting

19200bps, 8N1

1. Protocol

Consist of header (7 bytes) + command data (6 bytes).

2. Header

BE + EF + 03 + 06 + 00 + CRC_low + CRC_high
CRC_low : Lower byte of CRC flag for command data
CRC_high : Upper byte of CRC flag for command data

3. Command data

Command data chart

byte_0	byte_1	byte_2	byte_3	byte_4	byte_5
Action		Type		Setting code	
low	high	low	high	low	high

Action (byte_0 - 1)

Action	Classification	Content
1	SET	Change setting to desired value.
2	GET	Read projector internal setup value.
4	INCREMENT	Increment setup value by 1.
5	DECREMENT	Decrement setup value by 1.
6	EXECUTE	Run a command.

Requesting projector status (Get command)

(1) Send the request code Header + Command data ('02H'+'00H'+ type (2 bytes)+'00H' +'00H') from the computer to the projector.

(2) The projector returns the response code '1DH'+ data (2 bytes) to the computer.

Changing the projector settings (Set command)

(1) Send the setting code Header + Command data ('01H'+'00H'+ type (2 bytes) + setting code (2 bytes)) from the computer to the projector.

(2) The projector changes the setting based on the above setting code.

(3) The projector returns the response code '06H' to the computer.

Using the projector default settings (Reset Command)

(1) The computer sends the default setting code Header + Command data ('06H'+'00H' + type (2 bytes) +'00H'+'00H') to the projector.

(2) The projector changes the specified setting to the default value.

(3) The projector returns the response code '06H' to the computer.

Increasing the projector setting value (Increment command)

(1) The computer sends the increment code Header + Command data ('04H'+'00H'+ type (2 bytes) +'00H'+'00H') to the projector.

(2) The projector in creases the setting value on the above setting code.

(3) The projector returns the response code '06H' to the computer.

Decreasing the projector setting value (Decrement command)

(1) The computer sends the decrement code Header + Command data ('05H'+'00H'+ type (2 bytes) +'00H' + '00H') to the projector.

(2) The projector decreases the setting value on the above setting code.

(3) The projector returns the response code '06H' to the computer.

When the projector cannot understand the received command

When the projector cannot understand the received command, the error code '15H' is sent back to the computer.

Sometimes the projector cannot properly receive the command. In such a case, the command is not executed and the error code '15H' is sent back to the computer. If this error code is returned, send the same command again.

When the projector cannot execute the received command.

When the projector cannot execute the received command, the error code '1CH' + 'xxxxH' is sent back to the computer. When the data length is greater than indicated by the data length code, the projector ignore the excess data code.

Conversely when the data length is shorter than indicated by the data length code, an error code will be returned to the computer.

NOTE • Operation cannot be guaranteed when the projector receives an undefined command or data.

• Provide an interval of at least 40ms between the response code and any other code.

• The projector outputs test data when the power supply is switched ON, and when the lamp is lit. Ignore this data.

• Commands are not accepted during warm-up.

Command Control via the Network

Communication Port

The following two ports are assigned for the command control.

TCP #23

TCP #9715

Command Control Settings

Configure the following items form a web browser when command control is used.

Port Settings			
	Network Control Port1 (Port: 23)	Port open	Click the **[Enable]** check box to open **[Network Control Port1 (Port: 23)]** to use TCP #23. Default setting is “Enable”.
		Authentication	Click the **[Enable]** check box for the **[Authentication]** setting when authentication is required. Default setting is “Disable”.
	Network Control Port2 (Port: 9715)	Port open	Click the **[Enable]** check box to open **[Network Control Port2 (Port: 9715)]** to use TCP #9715. Default setting is “Enable”.
		Authentication	Click the **[Enable]** check box for the **[Authentication]** setting when authentication is required. Default setting is “Enable”.

When the authentication setting is enabled, the following settings are required.

Security Settings			
	Network Control	Authentication Password	Enter the desired authentication password. This setting will be the same for **[Network Control Port1 (Port: 23)]** and **[Network Control Port2 (Port: 9715)]**. Default setting is blank.
		Re-enter Authentication Password	

Command Format

[TCP #23]

1. Protocol

Consist of header (7 bytes) + command data (6 bytes)

2. Header

BE + EF + 03 + 06 + 00 + CRC_low + CRC_high
CRC_low: Lower byte of CRC flag for command data
CRC_high: Upper byte of CRC flag for command data

3. Command data

Command data chart

byte_0	byte_1	byte_2	byte_3	byte_4	byte_5
Action		Type		Setting code	
low	high	low	high	low	high

Action (byte_0 - 1)

Action	Classification	Content
1	Set	Change setting to desired value.
2	Get	Read projector internal setup value.
4	Increment	Increment setup value by 1.
5	Decrement	Decrement setup value by 1.
6	Execute	Run a command.

Requesting projector status (Get command)

(1) Send the following request code from the PC to the projector.
Header + Command data ('02H' + '00H' + type (2 bytes) + '00H' + '00H')
(2) The projector returns the response code *'1DH' + data (2 bytes)* to the PC.

Changing the projector settings (Set command)

(1) Send the following setting code from the PC to the projector.
Header + Command data ('01H' + '00H' + type (2 bytes) + setting code (2 bytes))
(2) The projector changes the setting based on the above setting code.
(3) The projector returns the response code *'06H'* to the PC.

Using the projector default settings (Reset Command)

(1) The PC sends the following default setting code to the projector.
Header + Command data ('06H' + '00H' + type (2 bytes) + '00H' + '00H')
(2) The projector changes the specified setting to the default value.
(3) The projector returns the response code *'06H'* to the PC.

Increasing the projector setting value (Increment command)

(1) The PC sends the following increment code to the projector.
Header + Command data ('04H' + '00H' + type (2 bytes) + '00H' + '00H')
(2) The projector increases the setting value on the above setting code.
(3) The projector returns the response code *'06H'* to the PC.

Decreasing the projector setting value (Decrement command)
(1) The PC sends the following decrement code to the projector.
Header + Command data ('05H' + '00H' + type (2 bytes) + '00H' + '00H')
(2) The projector decreases the setting value on the above setting code.
(3) The projector returns the response code *'06H'* to the PC.

When the projector cannot understand the received command
When the projector cannot understand the received command, the error code *'15H'* is sent back to the PC.
Sometimes the projector cannot properly receive the command. In such a case, the command is not executed and the error code *'15H'* is sent back to the PC. If this error code is returned, send the same command again.

When the projector cannot execute the received command.
When the projector cannot execute the received command, the error code *'1CH'* + *'xxxxH'* is sent back to the PC.
When the data length is greater than indicated by the data length code, the projector ignore the excess data code. Conversely when the data length is shorter than indicated by the data length code, an error code will be returned to the PC.

When authentication error occurred.
When authentication error occurred, the error code the *'1FH'* + *'0400H'* is sent back to the PC.

NOTE • Operation cannot be guaranteed when the projector receives an undefined command or data.
• Provide an interval of at least 40ms between the response code and any other code.
• Commands are not accepted during warm-up.

[TCP #9715]

1. Protocol
Consist of header (1 byte) + data length (1 byte) + command data (13 bytes) + check sum (1 bytes) + connection ID (1 byte).

2. Header
02, Fixed

3. Data Length
Network control commands byte length (0D, Fixed)

4. Command data
Network control commands that start with BE EF (13bytes).

5. Check Sum
This is the value to make zero on the addition of the lower 8 bits from the header to the checksum.

6. Connection ID
Random value from 0 to 255 (This value is attached to the reply data).

7. Reply Data

The connection ID (the data is same as the connection ID data on the sending data format) is attached to the Network control commands reply data.

ACK reply: *'06H'* + *'xxH'*
NAK reply: *'15H'* + *'xxH'*
Error reply: *'1CH'* + *'xxxxH'* + *'xxH'*
Data reply: *'1DH'* + *'xxxxH'* + *'xxH'*
Projector busy reply: *'1FH'* + *'xxxxH'* + *'xxH'*
Authentication error reply: *'1FH'* + *'0400H'* + *'xxH'*
(*'xxH'* : connection ID)

Automatic Connection Break

The TCP connection will be automatically disconnected after there is no communication for 30 seconds after being established.

Authentication

The projector does not accept commands without authentication success when authentication is enabled. The projector uses a challenge response type authentication with an MD5 (Message Digest 5) algorithm. When the projector is using a LAN, a random 8 bytes will be returned if authentication is enabled. Bind this received 8 bytes and the authentication password and digest this data with the MD5 algorithm and add this in front of the commands to send.

Following is a sample if the authentication password is set to "password" and the random 8 bytes are "a572f60c".

1) Select the projector.
2) Receive the random 8 bytes "a572f60c" from the projector.
3) Bind the random 8 bytes "a572f60c" and the authentication password "password" and it becomes "a572f60cpassword".
4) Digest this bind "a572f60cpassword" with MD5 algorithm.
   It will be "e3d97429adffa11bce1f7275813d4bde".
5) Add this "e3d97429adffa11bce1f7275813d4bde" in front of the commands and send the data.
   Send "e3d97429adffa11bce1f7275813d4bde"+command.
6) When the sending data is correct, the command will be performed and the reply data will be returned. Otherwise, an authentication error will be returned.

NOTE • As for the transmission of the second or subsequent commands, the authentication data can be omitted when the same connection.

RS-232C Communication / Network command table

Names	Operation Type		Header			CRC	Command Data		
							Action	Type	Setting Code
Power	Set	TURN OFF	BE EF	03	06 00	2A D3	01 00	00 60	00 00
		TURN ON	BE EF	03	06 00	BA D2	01 00	00 60	01 00
		Get	BE EF	03	06 00	19 D3	02 00	00 60	00 00
			(Example Return) 00 00 (Off) 01 00 (On) 02 00 (Cool Down)						
Input Source	Set	RGB1	BE EF	03	06 00	FE D2	01 00	00 20	00 00
		RGB2	BE EF	03	06 00	3E D0	01 00	00 20	04 00
		HDMI	BE EF	03	06 00	0E D2	01 00	00 20	03 00
		MIU	BE EF	03	06 00	5E D1	01 00	00 20	06 00
		COMPONENT	BE EF	03	06 00	AE D1	01 00	00 20	05 00
		S-VIDEO	BE EF	03	06 00	9E D3	01 00	00 20	02 00
		VIDEO	BE EF	03	06 00	6E D3	01 00	00 20	01 00
		Get	BE EF	03	06 00	CD D2	02 00	00 20	00 00
Error Status		Get	BE EF	03	06 00	D9 D8	02 00	20 60	00 00
			(Example Return) 00 00 (Normal) 01 00 (Cover error) 02 00 (Fan error) 03 00 (Lamp error) 04 00 (Temp error) 05 00 (Air flow error) 06 00 (Lamp time error) 07 00 (Cold error) 08 00 (Filter error)						
BRIGHTNESS		Get	BE EF	03	06 00	89 D2	02 00	03 20	00 00
		Increment	BE EF	03	06 00	EF D2	04 00	03 20	00 00
		Decrement	BE EF	03	06 00	3E D3	05 00	03 20	00 00
BRIGHTNESS Reset		Execute	BE EF	03	06 00	58 D3	06 00	00 70	00 00
CONTRAST		Get	BE EF	03	06 00	FD D3	02 00	04 20	00 00
		Increment	BE EF	03	06 00	9B D3	04 00	04 20	00 00
		Decrement	BE EF	03	06 00	4A D2	05 00	04 20	00 00
CONTRAST Reset		Execute	BE EF	03	06 00	A4 D2	06 00	01 70	00 00
PICTURE MODE	Set	NORMAL	BE EF	03	06 00	23 F6	01 00	BA 30	00 00
		CINEMA	BE EF	03	06 00	B3 F7	01 00	BA 30	01 00
		DYNAMIC	BE EF	03	06 00	E3 F4	01 00	BA 30	04 00
		BOARD (BLACK)	BE EF	03	06 00	E3 EF	01 00	BA 30	20 00
		BOARD (GREEN)	BE EF	03	06 00	73 EE	01 00	BA 30	21 00
		WHITE BOARD	BE EF	03	06 00	83 EE	01 00	BA 30	22 00
		DAY TIME	BE EF	03	06 00	E3 C7	01 00	BA 30	40 00
		Get	BE EF	03	06 00	10 F6	02 00	BA 30	00 00
			(Example Return) 00 00 (Normal) 01 00 (CINEMA) 04 00 (DYNAMIC) 10 00 (CUSTOM) 20 00 (BOARD(BLACK)) 21 00 (BOARD(GREEN)) 22 00 (WHITEBOARD) 40 00 (DAY TIME)						

RS-232C Communication / Network command table

Names	Operation Type		Header			CRC	Command Data		
							Action	Type	Setting Code
GAMMA	Set	#1 DEFAULT	BE EF	03	06 00	07 E9	01 00	A1 30	20 00
		#2 DEFAULT	BE EF	03	06 00	97 E8	01 00	A1 30	21 00
		#3 DEFAULT	BE EF	03	06 00	67 E8	01 00	A1 30	22 00
		#4 DEFAULT	BE EF	03	06 00	F7 E9	01 00	A1 30	23 00
		#5 DEFAULT	BE EF	03	06 00	C7 EB	01 00	A1 30	24 00
		#6 DEFAULT	BE EF	03	06 00	57 EA	01 00	A1 30	25 00
		#1 CUSTOM	BE EF	03	06 00	07 FD	01 00	A1 30	10 00
		#2 CUSTOM	BE EF	03	06 00	97 FC	01 00	A1 30	11 00
		#3 CUSTOM	BE EF	03	06 00	67 FC	01 00	A1 30	12 00
		#4 CUSTOM	BE EF	03	06 00	F7 FD	01 00	A1 30	13 00
		#5 CUSTOM	BE EF	03	06 00	C7 FF	01 00	A1 30	14 00
		#6 CUSTOM	BE EF	03	06 00	57 FE	01 00	A1 30	15 00
	Get		BE EF	03	06 00	F4 F0	02 00	A1 30	00 00
User Gamma Pattern	Set	Off	BE EF	03	06 00	FB FA	01 00	80 30	00 00
		9step Gray Scale	BE EF	03	06 00	6B FB	01 00	80 30	01 00
		15step Gray Scale	BE EF	03	06 00	9B FB	01 00	80 30	02 00
		Ramp	BE EF	03	06 00	0B FA	01 00	80 30	03 00
	Get		BE EF	03	06 00	C8 FA	02 00	80 30	00 00
User Gamma Point 1	Get		BE EF	03	06 00	08 FE	02 00	90 30	00 00
	Increment		BE EF	03	06 00	6E FE	04 00	90 30	00 00
	Decrement		BE EF	03	06 00	BF FF	05 00	90 30	00 00
User Gamma Point 2	Get		BE EF	03	06 00	F4 FF	02 00	91 30	00 00
	Increment		BE EF	03	06 00	92 FF	04 00	91 30	00 00
	Decrement		BE EF	03	06 00	43 FE	05 00	91 30	00 00
User Gamma Point 3	Get		BE EF	03	06 00	B0 FF	02 00	92 30	00 00
	Increment		BE EF	03	06 00	D6 FF	04 00	92 30	00 00
	Decrement		BE EF	03	06 00	07 FE	05 00	92 30	00 00
User Gamma Point 4	Get		BE EF	03	06 00	4C FE	02 00	93 30	00 00
	Increment		BE EF	03	06 00	2A FE	04 00	93 30	00 00
	Decrement		BE EF	03	06 00	FB FF	05 00	93 30	00 00
User Gamma Point 5	Get		BE EF	03	06 00	38 FF	02 00	94 30	00 00
	Increment		BE EF	03	06 00	5E FF	04 00	94 30	00 00
	Decrement		BE EF	03	06 00	8F FE	05 00	94 30	00 00
User Gamma Point 6	Get		BE EF	03	06 00	C4 FE	02 00	95 30	00 00
	Increment		BE EF	03	06 00	A2 FE	04 00	95 30	00 00
	Decrement		BE EF	03	06 00	73 FF	05 00	95 30	00 00
User Gamma Point 7	Get		BE EF	03	06 00	80 FE	02 00	96 30	00 00
	Increment		BE EF	03	06 00	E6 FE	04 00	96 30	00 00
	Decrement		BE EF	03	06 00	37 FF	05 00	96 30	00 00
User Gamma Point 8	Get		BE EF	03	06 00	7C FF	02 00	97 30	00 00
	Increment		BE EF	03	06 00	1A FF	04 00	97 30	00 00
	Decrement		BE EF	03	06 00	CB FE	05 00	97 30	00 00

Names	Operation Type		Header			CRC	Command Data		
							Action	Type	Setting Code
COLOR TEMP	Set	#1 HIGH	BE EF	03	06 00	0B F5	01 00	B0 30	03 00
		#2 MID	BE EF	03	06 00	9B F4	01 00	B0 30	02 00
		#3 LOW	BE EF	03	06 00	6B F4	01 00	B0 30	01 00
		#4 Hi-BRIGHT-1	BE EF	03	06 00	3B F2	01 00	B0 30	08 00
		#5 Hi-BRIGHT-2	BE EF	03	06 00	AB F3	01 00	B0 30	09 00
		#6 Hi-BRIGHT-3	BE EF	03	06 00	5B F3	01 00	B0 30	0A 00
		#1 CUSTOM (HIGH)	BE EF	03	06 00	CB F8	01 00	B0 30	13 00
		#2 CUSTOM (MID)	BE EF	03	06 00	5B F9	01 00	B0 30	12 00
		#3 CUSTOM (LOW)	BE EF	03	06 00	AB F9	01 00	B0 30	11 00
		#4 CUSTOM (Hi-BRIGHT-1)	BE EF	03	06 00	FB FF	01 00	B0 30	18 00
		#5 CUSTOM (Hi-BRIGHT-2)	BE EF	03	06 00	6B FE	01 00	B0 30	19 00
		#6 CUSTOM (Hi-BRIGHT-3)	BE EF	03	06 00	9B FE	01 00	B0 30	1A 00
	Get		BE EF	03	06 00	C8 F5	02 00	B0 30	00 00
COLOR TEMP GAIN R	Get		BE EF	03	06 00	34 F4	02 00	B1 30	00 00
	Increment		BE EF	03	06 00	52 F4	04 00	B1 30	00 00
	Decrement		BE EF	03	06 00	83 F5	05 00	B1 30	00 00
COLOR TEMP GAIN G	Get		BE EF	03	06 00	70 F4	02 00	B2 30	00 00
	Increment		BE EF	03	06 00	16 F4	04 00	B2 30	00 00
	Decrement		BE EF	03	06 00	C7 F5	05 00	B2 30	00 00
COLOR TEMP GAIN B	Get		BE EF	03	06 00	8C F5	02 00	B3 30	00 00
	Increment		BE EF	03	06 00	EA F5	04 00	B3 30	00 00
	Decrement		BE EF	03	06 00	3B F4	05 00	B3 30	00 00
COLOR TEMP OFFSET R	Get		BE EF	03	06 00	04 F5	02 00	B5 30	00 00
	Increment		BE EF	03	06 00	62 F5	04 00	B5 30	00 00
	Decrement		BE EF	03	06 00	B3 F4	05 00	B5 30	00 00
COLOR TEMP OFFSET G	Get		BE EF	03	06 00	40 F5	02 00	B6 30	00 00
	Increment		BE EF	03	06 00	26 F5	04 00	B6 30	00 00
	Decrement		BE EF	03	06 00	F7 F4	05 00	B6 30	00 00
COLOR TEMP OFFSET B	Get		BE EF	03	06 00	BC F4	02 00	B7 30	00 00
	Increment		BE EF	03	06 00	DA F4	04 00	B7 30	00 00
	Decrement		BE EF	03	06 00	0B F5	05 00	B7 30	00 00
COLOR	Get		BE EF	03	06 00	B5 72	02 00	02 22	00 00
	Increment		BE EF	03	06 00	D3 72	04 00	02 22	00 00
	Decrement		BE EF	03	06 00	02 73	05 00	02 22	00 00
COLOR Reset	Execute		BE EF	03	06 00	80 D0	06 00	0A 70	00 00
TINT	Get		BE EF	03	06 00	49 73	02 00	03 22	00 00
	Increment		BE EF	03	06 00	2F 73	04 00	03 22	00 00
	Decrement		BE EF	03	06 00	FE 72	05 00	03 22	00 00
TINT Reset	Execute		BE EF	03	06 00	7C D1	06 00	0B 70	00 00
SHARPNESS	Get		BE EF	03	06 00	F1 72	02 00	01 22	00 00
	Increment		BE EF	03	06 00	97 72	04 00	01 22	00 00
	Decrement		BE EF	03	06 00	46 73	05 00	01 22	00 00
SHARPNESS Reset	Execute		BE EF	03	06 00	C4 D0	06 00	09 70	00 00
MY MEMORY Load	Set	1	BE EF	03	06 00	0E D7	01 00	14 20	00 00
		2	BE EF	03	06 00	9E D6	01 00	14 20	01 00
		3	BE EF	03	06 00	6E D6	01 00	14 20	02 00
		4	BE EF	03	06 00	FE D7	01 00	14 20	03 00

Names	Operation Type		Header			CRC	Command Data		
							Action	Type	Setting Code
MY MEMORY Save	Set	1	BE EF	03	06 00	F2 D6	01 00	15 20	00 00
		2	BE EF	03	06 00	62 D7	01 00	15 20	01 00
		3	BE EF	03	06 00	92 D7	01 00	15 20	02 00
		4	BE EF	03	06 00	02 D6	01 00	15 20	03 00
PROGRESSIVE	Set	TURN OFF	BE EF	03	06 00	4A 72	01 00	07 22	00 00
		TV	BE EF	03	06 00	DA 73	01 00	07 22	01 00
		FILM	BE EF	03	06 00	2A 73	01 00	07 22	02 00
	Get		BE EF	03	06 00	79 72	02 00	07 22	00 00
3D-YCS	Set	TURN OFF	BE EF	03	06 00	E6 70	01 00	0A 22	00 00
		MOVIE	BE EF	03	06 00	76 71	01 00	0A 22	01 00
		STILL IMAGE	BE EF	03	06 00	86 71	01 00	0A 22	02 00
	Get		BE EF	03	06 00	D5 70	02 00	0A 22	00 00
VIDEO NR	Set	LOW	BE EF	03	06 00	26 72	01 00	06 22	01 00
		MIDDLE	BE EF	03	06 00	D6 72	01 00	06 22	02 00
		HIGH	BE EF	03	06 00	46 73	01 00	06 22	03 00
	Get		BE EF	03	06 00	85 73	02 00	06 22	00 00
ASPECT	Set	NORMAL	BE EF	03	06 00	5E DD	01 00	08 20	10 00
		4:3	BE EF	03	06 00	9E D0	01 00	08 20	00 00
		16:9	BE EF	03	06 00	0E D1	01 00	08 20	01 00
		14:9	BE EF	03	06 00	CE D6	01 00	08 20	09 00
		SMALL	BE EF	03	06 00	FE D1	01 00	08 20	02 00
	Get		BE EF	03	06 00	AD D0	02 00	08 20	00 00
OVER SCAN	Get		BE EF	03	06 00	91 70	02 00	09 22	00 00
	Increment		BE EF	03	06 00	F7 70	04 00	09 22	00 00
	Decrement		BE EF	03	06 00	26 71	05 00	09 22	00 00
OVER SCAN Reset	Execute		BE EF	03	06 00	EC D9	06 00	27 70	00 00
V POSITION	Get		BE EF	03	06 00	0D 83	02 00	00 21	00 00
	Increment		BE EF	03	06 00	6B 83	04 00	00 21	00 00
	Decrement		BE EF	03	06 00	BA 82	05 00	00 21	00 00
V POSITION Reset	Execute		BE EF	03	06 00	E0 D2	06 00	02 70	00 00
H POSITION	Get		BE EF	03	06 00	F1 82	02 00	01 21	00 00
	Increment		BE EF	03	06 00	97 82	04 00	01 21	00 00
	Decrement		BE EF	03	06 00	46 83	05 00	01 21	00 00
H POSITION Reset	Execute		BE EF	03	06 00	1C D3	06 00	03 70	00 00
H PHASE	Get		BE EF	03	06 00	49 83	02 00	03 21	00 00
	Increment		BE EF	03	06 00	2F 83	04 00	03 21	00 00
	Decrement		BE EF	03	06 00	FE 82	05 00	03 21	00 00
H SIZE	Get		BE EF	03	06 00	B5 82	02 00	02 21	00 00
	Increment		BE EF	03	06 00	D3 82	04 00	02 21	00 00
	Decrement		BE EF	03	06 00	02 83	05 00	02 21	00 00
H SIZE Reset	Execute		BE EF	03	06 00	68 D2	06 00	04 70	00 00
AUTO ADJUST	Execute		BE EF	03	06 00	91 D0	06 00	0A 20	00 00
COLOR SPACE	Set	AUTO	BE EF	03	06 00	0E 72	01 00	04 22	00 00
		RGB	BE EF	03	06 00	9E 73	01 00	04 22	01 00
		SMPTE240	BE EF	03	06 00	6E 73	01 00	04 22	02 00
		REC709	BE EF	03	06 00	FE 72	01 00	04 22	03 00
		REC601	BE EF	03	06 00	CE 70	01 00	04 22	04 00
	Get		BE EF	03	06 00	3D 72	02 00	04 22	00 00

Names	Operation Type		Header			CRC	Command Data		
							Action	Type	Setting Code
COMPONENT	Set	COMPONENT	BE EF	03	06 00	4A D7	01 00	17 20	00 00
		SCART RGB	BE EF	03	06 00	DA D6	01 00	17 20	01 00
	Get		BE EF	03	06 00	79 D7	02 00	17 20	00 00
C-VIDEO FORMAT	Set	AUTO	BE EF	03	06 00	A2 70	01 00	11 22	0A 00
		NTSC	BE EF	03	06 00	C2 74	01 00	11 22	04 00
		PAL	BE EF	03	06 00	52 75	01 00	11 22	05 00
		SECAM	BE EF	03	06 00	52 70	01 00	11 22	09 00
		NTSC4.43	BE EF	03	06 00	62 77	01 00	11 22	02 00
		M-PAL	BE EF	03	06 00	C2 71	01 00	11 22	08 00
		N-PAL	BE EF	03	06 00	32 74	01 00	11 22	07 00
	Get		BE EF	03	06 00	31 76	02 00	11 22	00 00
S-VIDEO FORMAT	Set	AUTO	BE EF	03	06 00	E6 70	01 00	12 22	0A 00
		NTSC	BE EF	03	06 00	86 74	01 00	12 22	04 00
		PAL	BE EF	03	06 00	16 75	01 00	12 22	05 00
		SECAM	BE EF	03	06 00	16 70	01 00	12 22	09 00
		NTSC4.43	BE EF	03	06 00	26 77	01 00	12 22	02 00
		M-PAL	BE EF	03	06 00	86 71	01 00	12 22	08 00
		N-PAL	BE EF	03	06 00	76 74	01 00	12 22	07 00
	Get		BE EF	03	06 00	75 76	02 00	12 22	00 00
HDMI	Set	AUTO	BE EF	03	06 00	86 D8	01 00	22 20	00 00
		NORMAL	BE EF	03	06 00	16 D9	01 00	22 20	01 00
		ENHANCED	BE EF	03	06 00	E6 D9	01 00	22 20	02 00
	Get		BE EF	03	06 00	B5 D8	02 00	22 20	00 00
FRAME LOCK - RGB1	Set	TURN OFF	BE EF	03	06 00	3B C2	01 00	50 30	00 00
		TURN ON	BE EF	03	06 00	AB C3	01 00	50 30	01 00
	Get		BE EF	03	06 00	08 C2	02 00	50 30	00 00
FRAME LOCK - RGB2	Set	TURN OFF	BE EF	03	06 00	0B C3	01 00	54 30	00 00
		TURN ON	BE EF	03	06 00	9B C2	01 00	54 30	01 00
	Get		BE EF	03	06 00	38 C3	02 00	54 30	00 00
FRAME LOCK - HDMI	Set	TURN OFF	BE EF	03	06 00	7F C2	01 00	53 30	00 00
		TURN ON	BE EF	03	06 00	EF C3	01 00	53 30	01 00
	Get		BE EF	03	06 00	4C C2	02 00	53 30	00 00
RGB IN1	Set	SYNC ON G OFF	BE EF	03	06 00	5E D7	01 00	10 20	02 00
		AUTO	BE EF	03	06 00	CE D6	01 00	10 20	03 00
	Get		BE EF	03	06 00	0D D6	02 00	10 20	00 00
RGB IN2	Set	SYNC ON G OFF	BE EF	03	06 00	A2 D6	01 00	11 20	02 00
		AUTO	BE EF	03	06 00	32 D7	01 00	11 20	03 00
	Get		BE EF	03	06 00	F1 D7	02 00	11 20	00 00
KEYSTONE V	Get		BE EF	03	06 00	B9 D3	02 00	07 20	00 00
	Increment		BE EF	03	06 00	DF D3	04 00	07 20	00 00
	Decrement		BE EF	03	06 00	0E D2	05 00	07 20	00 00
KEYSTONE V Reset	Execute		BE EF	03	06 00	08 D0	06 00	0C 70	00 00
AUTO KEYSTONE V EXECUTE	Execute		BE EF	03	06 00	E5 D1	06 00	0D 20	00 00
AUTO KEYSTONE V	Set	TURN OFF	BE EF	03	06 00	EA D1	01 00	0F 20	00 00
		TURN ON	BE EF	03	06 00	7A D0	01 00	0F 20	01 00
	Get		BE EF	03	06 00	D9 D1	02 00	0F 20	00 00
KEYSTONE H	Get		BE EF	03	06 00	E9 D0	02 00	0B 20	00 00
	Increment		BE EF	03	06 00	8F D0	04 00	0B 20	00 00
	Decrement		BE EF	03	06 00	5E D1	05 00	0B 20	00 00
KEYSTONE H Reset	Execute		BE EF	03	06 00	98 D8	06 00	20 70	00 00

Names	Operation Type		Header			CRC	Command Data		
							Action	Type	Setting Code
ACTIVE IRIS	Set	TURN OFF	BE EF	03	06 00	0B 22	01 00	04 33	00 00
		THEATER	BE EF	03	06 00	CB 2F	01 00	04 33	10 00
		PRESENTATION	BE EF	03	06 00	5B 2E	01 00	04 33	11 00
	Get		BE EF	03	06 00	38 22	02 00	04 33	00 00
WHISPER	Set	NORMAL	BE EF	03	06 00	3B 23	01 00	00 33	00 00
		WHISPER	BE EF	03	06 00	AB 22	01 00	00 33	01 00
	Get		BE EF	03	06 00	08 23	02 00	00 33	00 00
MIRROR	Set	NORMAL	BE EF	03	06 00	C7 D2	01 00	01 30	00 00
		H:INVERT	BE EF	03	06 00	57 D3	01 00	01 30	01 00
		V:INVERT	BE EF	03	06 00	A7 D3	01 00	01 30	02 00
		H&V:INVERT	BE EF	03	06 00	37 D2	01 00	01 30	03 00
	Get		BE EF	03	06 00	F4 D2	02 00	01 30	00 00
MONITOR OUT - RGB1	Set	RGB1	BE EF	03	06 00	3E F4	01 00	B0 20	00 00
		TURN OFF	BE EF	03	06 00	CE B5	01 00	B0 20	FF 00
	Get		BE EF	03	06 00	0D F4	02 00	B0 20	00 00
MONITOR OUT - RGB2	Set	RGB2	BE EF	03	06 00	CE F7	01 00	B4 20	04 00
		TURN OFF	BE EF	03	06 00	FE B4	01 00	B4 20	FF 00
	Get		BE EF	03	06 00	3D F5	02 00	B4 20	00 00
MONITOR OUT - HDMI	Set	RGB1	BE EF	03	06 00	7A F4	01 00	B3 20	00 00
		RGB2	BE EF	03	06 00	BA F6	01 00	B3 20	04 00
		TURN OFF	BE EF	03	06 00	8A B5	01 00	B3 20	FF 00
	Get		BE EF	03	06 00	49 F4	02 00	B3 20	00 00
MONITOR OUT - MIU	Set	RGB1	BE EF	03	06 00	B6 F4	01 00	B6 20	00 00
		RGB2	BE EF	03	06 00	76 F6	01 00	B6 20	04 00
		TURN OFF	BE EF	03	06 00	46 B5	01 00	B6 20	FF 00
	Get		BE EF	03	06 00	85 F4	02 00	B6 20	00 00
MONITOR OUT - COMPONENT	Set	RGB1	BE EF	03	06 00	F2 F4	01 00	B5 20	00 00
		RGB2	BE EF	03	06 00	32 F6	01 00	B5 20	04 00
		TURN OFF	BE EF	03	06 00	02 B5	01 00	B5 20	FF 00
	Get		BE EF	03	06 00	C1 F4	02 00	B5 20	00 00
MONITOR OUT - S-VIDEO	Set	RGB1	BE EF	03	06 00	86 F5	01 00	B2 20	00 00
		RGB2	BE EF	03	06 00	46 F7	01 00	B2 20	04 00
		TURN OFF	BE EF	03	06 00	76 B4	01 00	B2 20	FF 00
	Get		BE EF	03	06 00	B5 F5	02 00	B2 20	00 00
MONITOR OUT - VIDEO	Set	RGB1	BE EF	03	06 00	C2 F5	01 00	B1 20	00 00
		RGB2	BE EF	03	06 00	02 F7	01 00	B1 20	04 00
		TURN OFF	BE EF	03	06 00	32 B4	01 00	B1 20	FF 00
	Get		BE EF	03	06 00	F1 F5	02 00	B1 20	00 00
MONITOR OUT - STANDBY	Set	RGB1	BE EF	03	06 00	2A F7	01 00	BF 20	00 00
		RGB2	BE EF	03	06 00	EA F5	01 00	BF 20	04 00
		TURN OFF	BE EF	03	06 00	DA B6	01 00	BF 20	FF 00
	Get		BE EF	03	06 00	19 F7	02 00	BF 20	00 00
VOLUME - RGB1	Get		BE EF	03	06 00	CD CC	02 00	60 20	00 00
	Increment		BE EF	03	06 00	AB CC	04 00	60 20	00 00
	Decrement		BE EF	03	06 00	7A CD	05 00	60 20	00 00
VOLUME - RGB2	Get		BE EF	03	06 00	FD CD	02 00	64 20	00 00
	Increment		BE EF	03	06 00	9B CD	04 00	64 20	00 00
	Decrement		BE EF	03	06 00	4A CC	05 00	64 20	00 00

Names	Operation Type	Header			CRC	Command Data		
						Action	Type	Setting Code
VOLUME - HDMI	Get	BE EF	03	06 00	89 CC	02 00	63 20	00 00
	Increment	BE EF	03	06 00	EF CC	04 00	63 20	00 00
	Decrement	BE EF	03	06 00	3E CD	05 00	63 20	00 00
VOLUME - MIU	Get	BE EF	03	06 00	45 CC	02 00	66 20	00 00
	Increment	BE EF	03	06 00	23 CC	04 00	66 20	00 00
	Decrement	BE EF	03	06 00	F2 CD	05 00	66 20	00 00
VOLUME - COMPONENT	Get	BE EF	03	06 00	01 CC	02 00	65 20	00 00
	Increment	BE EF	03	06 00	67 CC	04 00	65 20	00 00
	Decrement	BE EF	03	06 00	B6 CD	05 00	65 20	00 00
VOLUME - S-VIDEO	Get	BE EF	03	06 00	75 CD	02 00	62 20	00 00
	Increment	BE EF	03	06 00	13 CD	04 00	62 20	00 00
	Decrement	BE EF	03	06 00	C2 CC	05 00	62 20	00 00
VOLUME - VIDEO	Get	BE EF	03	06 00	31 CD	02 00	61 20	00 00
	Increment	BE EF	03	06 00	57 CD	04 00	61 20	00 00
	Decrement	BE EF	03	06 00	86 CC	05 00	61 20	00 00
VOLUME - AUDIO OUT STANDBY	Get	BE EF	03	06 00	D9 CF	02 00	6F 20	00 00
	Increment	BE EF	03	06 00	BF CF	04 00	6F 20	00 00
	Decrement	BE EF	03	06 00	6E CE	05 00	6F 20	00 00
TREBLE - RGB1	Get	BE EF	03	06 00	0D C8	02 00	70 20	00 00
	Increment	BE EF	03	06 00	6B C8	04 00	70 20	00 00
	Decrement	BE EF	03	06 00	BA C9	05 00	70 20	00 00
TREBLE -RGB2	Get	BE EF	03	06 00	3D C9	02 00	74 20	00 00
	Increment	BE EF	03	06 00	5B C9	04 00	74 20	00 00
	Decrement	BE EF	03	06 00	8A C8	05 00	74 20	00 00
TREBLE - HDMI	Get	BE EF	03	06 00	49 C8	02 00	73 20	00 00
	Increment	BE EF	03	06 00	2F C8	04 00	73 20	00 00
	Decrement	BE EF	03	06 00	FE C9	05 00	73 20	00 00
TREBLE - MIU	Get	BE EF	03	06 00	85 C8	02 00	76 20	00 00
	Increment	BE EF	03	06 00	E3 C8	04 00	76 20	00 00
	Decrement	BE EF	03	06 00	32 C9	05 00	76 20	00 00
TREBLE - COMPONENT	Get	BE EF	03	06 00	C1 C8	02 00	75 20	00 00
	Increment	BE EF	03	06 00	A7 C8	04 00	75 20	00 00
	Decrement	BE EF	03	06 00	76 C9	05 00	75 20	00 00
TREBLE - S-VIDEO	Get	BE EF	03	06 00	B5 C9	02 00	72 20	00 00
	Increment	BE EF	03	06 00	D3 C9	04 00	72 20	00 00
	Decrement	BE EF	03	06 00	02 C8	05 00	72 20	00 00
TREBLE - VIDEO	Get	BE EF	03	06 00	F1 C9	02 00	71 20	00 00
	Increment	BE EF	03	06 00	97 C9	04 00	71 20	00 00
	Decrement	BE EF	03	06 00	46 C8	05 00	71 20	00 00
TREBLE - AUDIO OUT STANDBY	Get	BE EF	03	06 00	19 CB	02 00	7F 20	00 00
	Increment	BE EF	03	06 00	7F CB	04 00	7F 20	00 00
	Decrement	BE EF	03	06 00	AE CA	05 00	7F 20	00 00
BASS - RGB1	Get	BE EF	03	06 00	0D FB	02 00	80 20	00 00
	Increment	BE EF	03	06 00	6B FB	04 00	80 20	00 00
	Decrement	BE EF	03	06 00	BA FA	05 00	80 20	00 00
BASS - RGB2	Get	BE EF	03	06 00	3D FA	02 00	84 20	00 00
	Increment	BE EF	03	06 00	5B FA	04 00	84 20	00 00
	Decrement	BE EF	03	06 00	8A FB	05 00	84 20	00 00
BASS - HDMI	Get	BE EF	03	06 00	49 FB	02 00	83 20	00 00
	Increment	BE EF	03	06 00	2F FB	04 00	83 20	00 00
	Decrement	BE EF	03	06 00	FE FA	05 00	83 20	00 00

Names	Operation Type		Header			CRC	Command Data		
							Action	Type	Setting Code
BASS - MIU	Get		BE EF	03	06 00	85 FB	02 00	86 20	00 00
	Increment		BE EF	03	06 00	E3 FB	04 00	86 20	00 00
	Decrement		BE EF	03	06 00	32 FA	05 00	86 20	00 00
BASS - COMPONENT	Get		BE EF	03	06 00	C1 FB	02 00	85 20	00 00
	Increment		BE EF	03	06 00	A7 FB	04 00	85 20	00 00
	Decrement		BE EF	03	06 00	76 FA	05 00	85 20	00 00
BASS - S-VIDEO	Get		BE EF	03	06 00	B5 FA	02 00	82 20	00 00
	Increment		BE EF	03	06 00	D3 FA	04 00	82 20	00 00
	Decrement		BE EF	03	06 00	02 FB	05 00	82 20	00 00
BASS - VIDEO	Get		BE EF	03	06 00	F1 FA	02 00	81 20	00 00
	Increment		BE EF	03	06 00	97 FA	04 00	81 20	00 00
	Decrement		BE EF	03	06 00	46 FB	05 00	81 20	00 00
BASS - AUDIO OUT STANDBY	Get		BE EF	03	06 00	19 F8	02 00	8F 20	00 00
	Increment		BE EF	03	06 00	7F F8	04 00	8F 20	00 00
	Decrement		BE EF	03	06 00	AE F9	05 00	8F 20	00 00
SRS WOW - RGB1	Set	TURN OFF	BE EF	03	06 00	FE FF	01 00	90 20	00 00
		MID	BE EF	03	06 00	9E FE	01 00	90 20	02 00
		HIGH	BE EF	03	06 00	0E FF	01 00	90 20	03 00
	Get		BE EF	03	06 00	CD FF	02 00	90 20	00 00
SRS WOW - RGB2	Set	TURN OFF	BE EF	03	06 00	CE FE	01 00	94 20	00 00
		MID	BE EF	03	06 00	AE FF	01 00	94 20	02 00
		HIGH	BE EF	03	06 00	3E FE	01 00	94 20	03 00
	Get		BE EF	03	06 00	FD FE	02 00	94 20	00 00
SRS WOW - HDMI	Set	TURN OFF	BE EF	03	06 00	BA FF	01 00	93 20	00 00
		MID	BE EF	03	06 00	DA FE	01 00	93 20	02 00
		HIGH	BE EF	03	06 00	4A FF	01 00	93 20	03 00
	Get		BE EF	03	06 00	89 FF	02 00	93 20	00 00
SRS WOW - MIU	Set	TURN OFF	BE EF	03	06 00	76 FF	01 00	96 20	00 00
		MID	BE EF	03	06 00	16 FE	01 00	96 20	02 00
		HIGH	BE EF	03	06 00	86 FF	01 00	96 20	03 00
	Get		BE EF	03	06 00	45 FF	02 00	96 20	00 00
SRS WOW - COMPONENT	Set	TURN OFF	BE EF	03	06 00	32 FF	01 00	95 20	00 00
		MID	BE EF	03	06 00	52 FE	01 00	95 20	02 00
		HIGH	BE EF	03	06 00	C2 FF	01 00	95 20	03 00
	Get		BE EF	03	06 00	01 FF	02 00	95 20	00 00
SRS WOW - S-VIDEO	Set	TURN OFF	BE EF	03	06 00	46 FE	01 00	92 20	00 00
		MID	BE EF	03	06 00	26 FF	01 00	92 20	02 00
		HIGH	BE EF	03	06 00	B6 FE	01 00	92 20	03 00
	Get		BE EF	03	06 00	75 FE	02 00	92 20	00 00
SRS WOW - VIDEO	Set	TURN OFF	BE EF	03	06 00	02 FE	01 00	91 20	00 00
		MID	BE EF	03	06 00	62 FF	01 00	91 20	02 00
		HIGH	BE EF	03	06 00	F2 FE	01 00	91 20	03 00
	Get		BE EF	03	06 00	31 FE	02 00	91 20	00 00
SRS WOW - AUDIO OUT STANDBY	Set	TURN OFF	BE EF	03	06 00	EA FC	01 00	9F 20	00 00
		MID	BE EF	03	06 00	8A FD	01 00	9F 20	02 00
		HIGH	BE EF	03	06 00	1A FC	01 00	9F 20	03 00
	Get		BE EF	03	06 00	D9 FC	02 00	9F 20	00 00
MUTE	Set	TURN OFF	BE EF	03	06 00	46 D3	01 00	02 20	00 00
		TURN ON	BE EF	03	06 00	D6 D2	01 00	02 20	01 00
	Get		BE EF	03	06 00	75 D3	02 00	02 20	00 00
SPEAKER	Set	TURN OFF	BE EF	03	06 00	6E D5	01 00	1C 20	00 00
		TURN ON	BE EF	03	06 00	FE D4	01 00	1C 20	01 00
	Get		BE EF	03	06 00	5D D5	02 00	1C 20	00 00

Names	Operation Type		Header			CRC	Command Data		
							Action	Type	Setting Code
AUDIO - RGB1	Set	TURN OFF	BE EF	03	06 00	FE DD	01 00	30 20	00 00
		AUDIO1	BE EF	03	06 00	6E DC	01 00	30 20	01 00
		AUDIO2	BE EF	03	06 00	9E DC	01 00	30 20	02 00
		AUDIO3	BE EF	03	06 00	0E DD	01 00	30 20	03 00
		AUDIO4	BE EF	03	06 00	3E DF	01 00	30 20	04 00
	Get		BE EF	03	06 00	CD DD	02 00	30 20	00 00
AUDIO - RGB2	Set	TURN OFF	BE EF	03	06 00	CE DC	01 00	34 20	00 00
		AUDIO1	BE EF	03	06 00	5E DD	01 00	34 20	01 00
		AUDIO2	BE EF	03	06 00	AE DD	01 00	34 20	02 00
		AUDIO3	BE EF	03	06 00	3E DC	01 00	34 20	03 00
		AUDIO4	BE EF	03	06 00	0E DE	01 00	34 20	04 00
	Get		BE EF	03	06 00	FD DC	02 00	34 20	00 00
AUDIO - HDMI	Set	TURN OFF	BE EF	03	06 00	BA DD	01 00	33 20	00 00
		AUDIO1	BE EF	03	06 00	2A DC	01 00	33 20	01 00
		AUDIO2	BE EF	03	06 00	DA DC	01 00	33 20	02 00
		AUDIO3	BE EF	03	06 00	4A DD	01 00	33 20	03 00
		AUDIO4	BE EF	03	06 00	7A DF	01 00	33 20	04 00
		AUDIO_HDMI	BE EF	03	06 00	7A C4	01 00	33 20	20 00
	Get		BE EF	03	06 00	89 DD	02 00	33 20	00 00
AUDIO - MIU	Set	TURN OFF	BE EF	03	06 00	76 DD	01 00	36 20	00 00
		AUDIO1	BE EF	03	06 00	E6 DC	01 00	36 20	01 00
		AUDIO2	BE EF	03	06 00	16 DC	01 00	36 20	02 00
		AUDIO3	BE EF	03	06 00	86 DD	01 00	36 20	03 00
		AUDIO4	BE EF	03	06 00	B6 DF	01 00	36 20	04 00
		MIU	BE EF	03	06 00	B6 D0	01 00	36 20	10 00
	Get		BE EF	03	06 00	45 DD	02 00	36 20	00 00
AUDIO - COMPONENT	Set	TURN OFF	BE EF	03	06 00	32 DD	01 00	35 20	00 00
		AUDIO1	BE EF	03	06 00	A2 DC	01 00	35 20	01 00
		AUDIO2	BE EF	03	06 00	52 DC	01 00	35 20	02 00
		AUDIO3	BE EF	03	06 00	C2 DD	01 00	35 20	03 00
		AUDIO4	BE EF	03	06 00	F2 DF	01 00	35 20	04 00
	Get		BE EF	03	06 00	01 DD	02 00	35 20	00 00
AUDIO - S-VIDEO	Set	TURN OFF	BE EF	03	06 00	46 DC	01 00	32 20	00 00
		AUDIO1	BE EF	03	06 00	D6 DD	01 00	32 20	01 00
		AUDIO2	BE EF	03	06 00	26 DD	01 00	32 20	02 00
		AUDIO3	BE EF	03	06 00	B6 DC	01 00	32 20	03 00
		AUDIO4	BE EF	03	06 00	86 DE	01 00	32 20	04 00
	Get		BE EF	03	06 00	75 DC	02 00	32 20	00 00
AUDIO - VIDEO	Set	TURN OFF	BE EF	03	06 00	02 DC	01 00	31 20	00 00
		AUDIO1	BE EF	03	06 00	92 DD	01 00	31 20	01 00
		AUDIO2	BE EF	03	06 00	62 DD	01 00	31 20	02 00
		AUDIO3	BE EF	03	06 00	F2 DC	01 00	31 20	03 00
		AUDIO4	BE EF	03	06 00	C2 DE	01 00	31 20	04 00
	Get		BE EF	03	06 00	31 DC	02 00	31 20	00 00
AUDIO OUT STANDBY	Set	TURN OFF	BE EF	03	06 00	EA DE	01 00	3F 20	00 00
		AUDIO1	BE EF	03	06 00	7A DF	01 00	3F 20	01 00
		AUDIO2	BE EF	03	06 00	8A DF	01 00	3F 20	02 00
		AUDIO3	BE EF	03	06 00	1A DE	01 00	3F 20	03 00
		AUDIO4	BE EF	03	06 00	2A DC	01 00	3F 20	04 00
	Get		BE EF	03	06 00	D9 DE	02 00	3F 20	00 00

Names	Operation Type		Header			CRC	Command Data		
							Action	Type	Setting Code
HDMI AUDIO	Set	1	BE EF	03	06 00	AE C6	01 00	40 20	01 00
		2	BE EF	03	06 00	5E C6	01 00	40 20	02 00
	Get		BE EF	03	06 00	0D C7	02 00	40 20	00 00
REMOTE FRONT	Set	Off	BE EF	03	06 00	FF 32	01 00	00 26	00 00
		On	BE EF	03	06 00	6F 33	01 00	00 26	01 00
	Get		BE EF	03	06 00	CC 32	02 00	00 26	00 00
REMOTE REAR	Set	Off	BE EF	03	06 00	03 33	01 00	01 26	00 00
		On	BE EF	03	06 00	93 32	01 00	01 26	01 00
	Get		BE EF	03	06 00	30 33	02 00	01 26	00 00
REMOTE TOP	Set	Off	BE EF	03	06 00	47 33	01 00	02 26	00 00
		On	BE EF	03	06 00	D7 32	01 00	02 26	01 00
	Get		BE EF	03	06 00	74 33	02 00	02 26	00 00
REMOTE FREQUENCY NORMAL	Set	Disable	BE EF	03	06 00	FF 3D	01 00	30 26	00 00
		Enable	BE EF	03	06 00	6F 3C	01 00	30 26	01 00
	Get		BE EF	03	06 00	CC 3D	02 00	30 26	00 00
REMOTE FREQUENCY HIGH	Set	Disable	BE EF	03	06 00	03 3C	01 00	31 26	00 00
		Enable	BE EF	03	06 00	93 3D	01 00	31 26	01 00
	Get		BE EF	03	06 00	30 3C	02 00	31 26	00 00
LANGUAGE	Set	ENGLISH	BE EF	03	06 00	F7 D3	01 00	05 30	00 00
		FRANCAIS	BE EF	03	06 00	67 D2	01 00	05 30	01 00
		DEUTSCH	BE EF	03	06 00	97 D2	01 00	05 30	02 00
		ESPANOL	BE EF	03	06 00	07 D3	01 00	05 30	03 00
		ITALIANO	BE EF	03	06 00	37 D1	01 00	05 30	04 00
		NORSK	BE EF	03	06 00	A7 D0	01 00	05 30	05 00
		NEDERLANDS	BE EF	03	06 00	57 D0	01 00	05 30	06 00
		PORTUGUESE	BE EF	03	06 00	C7 D1	01 00	05 30	07 00
		日本語	BE EF	03	06 00	37 D4	01 00	05 30	08 00
		简体中文	BE EF	03	06 00	A7 D5	01 00	05 30	09 00
		繁體中文	BE EF	03	06 00	37 DE	01 00	05 30	10 00
		한글	BE EF	03	06 00	57 D5	01 00	05 30	0A 00
		SVENSKA	BE EF	03	06 00	C7 D4	01 00	05 30	0B 00
		PYCCKNN	BE EF	03	06 00	F7 D6	01 00	05 30	0C 00
		SUOMI	BE EF	03	06 00	67 D7	01 00	05 30	0D 00
		POLSKI	BE EF	03	06 00	97 D7	01 00	05 30	0E 00
		TÜRKÇE	BE EF	03	06 00	07 D6	01 00	05 30	0F 00
	Get		BE EF	03	06 00	C4 D3	02 00	05 30	00 00
MENU POSITION V	Get		BE EF	03	06 00	40 D7	02 00	16 30	00 00
	Increment		BE EF	03	06 00	26 D7	04 00	16 30	00 00
	Decrement		BE EF	03	06 00	F7 D6	05 00	16 30	00 00
MENU POSITION V Reset	Execute		BE EF	03	06 00	A8 C7	06 00	44 70	00 00
MENU POSITION H	Get		BE EF	03	06 00	04 D7	02 00	15 30	00 00
	Increment		BE EF	03	06 00	62 D7	04 00	15 30	00 00
	Decrement		BE EF	03	06 00	B3 D6	05 00	15 30	00 00
MENU POSITION H Reset	Execute		BE EF	03	06 00	DC C6	06 00	43 70	00 00

Names	Operation Type		Header			CRC	Command Data		
							Action	Type	Setting Code
BLANK	Set	MyScreen	BE EF	03	06 00	FB CA	01 00	00 30	20 00
		ORIGINAL	BE EF	03	06 00	FB E2	01 00	00 30	40 00
		BLUE	BE EF	03	06 00	CB D3	01 00	00 30	03 00
		WHITE	BE EF	03	06 00	6B D0	01 00	00 30	05 00
		BLACK	BE EF	03	06 00	9B D0	01 00	00 30	06 00
	Get		BE EF	03	06 00	08 D3	02 00	00 30	00 00
BLANK On/Off	Set	TURN OFF	BE EF	03	06 00	FB D8	01 00	20 30	00 00
		TURN ON	BE EF	03	06 00	6B D9	01 00	20 30	01 00
	Get		BE EF	03	06 00	C8 D8	02 00	20 30	00 00
START UP	Set	MyScreen	BE EF	03	06 00	CB CB	01 00	04 30	20 00
		ORIGINAL	BE EF	03	06 00	0B D2	01 00	04 30	00 00
		TURN OFF	BE EF	03	06 00	9B D3	01 00	04 30	01 00
	Get		BE EF	03	06 00	38 D2	02 00	04 30	00 00
MyScreen LOCK	Set	TURN OFF	BE EF	03	06 00	3B EF	01 00	C0 30	00 00
		TURN ON	BE EF	03	06 00	AB EE	01 00	C0 30	01 00
	Get		BE EF	03	06 00	08 EF	02 00	C0 30	00 00
MESSAGE	Set	TURN OFF	BE EF	03	06 00	8F D6	01 00	17 30	00 00
		TURN ON	BE EF	03	06 00	1F D7	01 00	17 30	01 00
	Get		BE EF	03	06 00	BC D6	02 00	17 30	00 00
TEMPLATE	Set	TEST PATTERN	BE EF	03	06 00	43 D9	01 00	22 30	00 00
		DOT-LINE1	BE EF	03	06 00	D3 D8	01 00	22 30	01 00
		DOT-LINE2	BE EF	03	06 00	23 D8	01 00	22 30	02 00
		DOT-LINE3	BE EF	03	06 00	B3 D9	01 00	22 30	03 00
		DOT-LINE4	BE EF	03	06 00	83 DB	01 00	22 30	04 00
	Get		BE EF	03	06 00	70 D9	02 00	22 30	00 00
TEMPLATE On/Off	Set	TURN OFF	BE EF	03	06 00	BF D8	01 00	23 30	00 00
		TURN ON	BE EF	03	06 00	2F D9	01 00	23 30	01 00
	Get		BE EF	03	06 00	8C D8	02 00	23 30	00 00
AUTO SEARCH	Set	TURN OFF	BE EF	03	06 00	B6 D6	01 00	16 20	00 00
		TURN ON	BE EF	03	06 00	26 D7	01 00	16 20	01 00
	Get		BE EF	03	06 00	85 D6	02 00	16 20	00 00
AUTO OFF	Get		BE EF	03	06 00	08 86	02 00	10 31	00 00
	Increment		BE EF	03	06 00	6E 86	04 00	10 31	00 00
	Decrement		BE EF	03	06 00	BF 87	05 00	10 31	00 00
AUTO ON	Set	TURN OFF	BE EF	03	06 00	3B 89	01 00	20 31	00 00
		TURN ON	BE EF	03	06 00	AB 88	01 00	20 31	01 00
	Get		BE EF	03	06 00	08 89	02 00	20 31	00 00
LAMP TIME	Get		BE EF	03	06 00	C2 FF	02 00	90 10	00 00
LAMP TIME Reset	Execute		BE EF	03	06 00	58 DC	06 00	30 70	00 00
FILTER TIME	Get		BE EF	03	06 00	C2 F0	02 00	A0 10	00 00
FILTER TIME Reset	Execute		BE EF	03	06 00	98 C6	06 00	40 70	00 00

Names	Operation Type		Header			CRC	Command Data		
							Action	Type	Setting Code
MY BUTTON-1	Set	RGB1	BE EF	03	06 00	3A 33	01 00	00 36	00 00
		RGB2	BE EF	03	06 00	FA 31	01 00	00 36	04 00
		HDMI	BE EF	03	06 00	CA 33	01 00	00 36	03 00
		MIU	BE EF	03	06 00	9A 30	01 00	00 36	06 00
		COMPONENT	BE EF	03	06 00	6A 30	01 00	00 36	05 00
		S-VIDEO	BE EF	03	06 00	5A 32	01 00	00 36	02 00
		VIDEO	BE EF	03	06 00	AA 32	01 00	00 36	01 00
		INFORMATION	BE EF	03	06 00	FA 3E	01 00	00 36	10 00
		AUTO KEYSTONE EXECUTE	BE EF	03	06 00	6A 3F	01 00	00 36	11 00
		MY MEMORY	BE EF	03	06 00	9A 3F	01 00	00 36	12 00
		PICTURE MODE	BE EF	03	06 00	0A 3E	01 00	00 36	13 00
		FILTER RESET	BE EF	03	06 00	3A 3C	01 00	00 36	14 00
		ACTIVE IRIS	BE EF	03	06 00	AA 3D	01 00	00 36	15 00
		MY IMAGE	BE EF	03	06 00	5A 3D	01 00	00 36	16 00
		AV MUTE	BE EF	03	06 00	AA 38	01 00	00 36	19 00
		TEMPLATE	BE EF	03	06 00	CA 39	01 00	00 36	1B 00
		LIVE MODE	BE EF	03	06 00	FA 2A	01 00	00 36	20 00
		THUMBNAIL	BE EF	03	06 00	6A 2B	01 00	00 36	21 00
		SLIDE SHOW	BE EF	03	06 00	9A 2B	01 00	00 36	22 00
		DIRECTORY	BE EF	03	06 00	0A 2A	01 00	00 36	23 00
		REMOVE MEDIA	BE EF	03	06 00	3A 28	01 00	00 36	24 00
	Get		BE EF	03	06 00	09 33	02 00	00 36	00 00
MY BUTTON-2	Set	RGB1	BE EF	03	06 00	C6 32	01 00	01 36	00 00
		RGB2	BE EF	03	06 00	06 30	01 00	01 36	04 00
		HDMI	BE EF	03	06 00	36 32	01 00	01 36	03 00
		MIU	BE EF	03	06 00	66 31	01 00	01 36	06 00
		COMPONENT	BE EF	03	06 00	96 31	01 00	01 36	05 00
		S-VIDEO	BE EF	03	06 00	A6 33	01 00	01 36	02 00
		VIDEO	BE EF	03	06 00	56 33	01 00	01 36	01 00
		INFORMATION	BE EF	03	06 00	06 3F	01 00	01 36	10 00
		AUTO KEYSTONE EXECUTE	BE EF	03	06 00	96 3E	01 00	01 36	11 00
		MY MEMORY	BE EF	03	06 00	66 3E	01 00	01 36	12 00
		PICTURE MODE	BE EF	03	06 00	F6 3F	01 00	01 36	13 00
		FILTER RESET	BE EF	03	06 00	C6 3D	01 00	01 36	14 00
		ACTIVE IRIS	BE EF	03	06 00	56 3C	01 00	01 36	15 00
		MY IMAGE	BE EF	03	06 00	A6 3C	01 00	01 36	16 00
		AV MUTE	BE EF	03	06 00	56 39	01 00	01 36	19 00
		TEMPLATE	BE EF	03	06 00	36 38	01 00	01 36	1B 00
		LIVE MODE	BE EF	03	06 00	06 2B	01 00	01 36	20 00
		THUMBNAIL	BE EF	03	06 00	96 2A	01 00	01 36	21 00
		SLIDE SHOW	BE EF	03	06 00	66 2A	01 00	01 36	22 00
		DIRECTORY	BE EF	03	06 00	F6 2B	01 00	01 36	23 00
		REMOVE MEDIA	BE EF	03	06 00	C6 29	01 00	01 36	24 00
	Get		BE EF	03	06 00	F5 32	02 00	01 36	00 00

Names	Operation Type		Header			CRC	Command Data		
							Action	Type	Setting Code
MY SOURCE	Set	RGB1	BE EF	03	06 00	FA 38	01 00	20 36	00 00
		RGB2	BE EF	03	06 00	3A 3A	01 00	20 36	04 00
		HDMI	BE EF	03	06 00	0A 38	01 00	20 36	03 00
		MIU	BE EF	03	06 00	5A 3B	01 00	20 36	06 00
		COMPONENT	BE EF	03	06 00	AA 3B	01 00	20 36	05 00
		S-VIDEO	BE EF	03	06 00	9A 39	01 00	20 36	02 00
		VIDEO	BE EF	03	06 00	6A 39	01 00	20 36	01 00
	Get		BE EF	03	06 00	C9 38	02 00	20 36	00 00
MAGNIFY	Get		BE EF	03	06 00	7C D2	02 00	07 30	00 00
	Increment		BE EF	03	06 00	1A D2	04 00	07 30	00 00
	Decrement		BE EF	03	06 00	CB D3	05 00	07 30	00 00
FREEZE	Set	NORMAL	BE EF	03	06 00	83 D2	01 00	02 30	00 00
		FREEZE	BE EF	03	06 00	13 D3	01 00	02 30	01 00
	Get		BE EF	03	06 00	B0 D2	02 00	02 30	00 00
CLOSED CAPTION DISPLAY	Set	TURN OFF	BE EF	03	06 00	FA 62	01 00	00 37	00 00
		TURN ON	BE EF	03	06 00	6A 63	01 00	00 37	01 00
		AUTO	BE EF	03	06 00	9A 63	01 00	00 37	02 00
	Get		BE EF	03	06 00	C9 62	02 00	00 37	00 00
CLOSED CAPTION MODE	Set	CAPTIONS	BE EF	03	06 00	06 63	01 00	01 37	00 00
		TEXT	BE EF	03	06 00	96 62	01 00	01 37	01 00
	Get		BE EF	03	06 00	35 63	02 00	01 37	00 00
CLOSED CAPTION CHANNEL	Set	1	BE EF	03	06 00	D2 62	01 00	02 37	01 00
		2	BE EF	03	06 00	22 62	01 00	02 37	02 00
		3	BE EF	03	06 00	B2 63	01 00	02 37	03 00
		4	BE EF	03	06 00	82 61	01 00	02 37	04 00
	Get		BE EF	03	06 00	71 63	02 00	02 37	00 00
MY IMAGE	Set	OFF	BE EF	03	06 00	3A C3	01 00	00 35	00 00
		IMAGE-1	BE EF	03	06 00	AA C2	01 00	00 35	01 00
		IMAGE-2	BE EF	03	06 00	5A C2	01 00	00 35	02 00
		IMAGE-3	BE EF	03	06 00	CA C3	01 00	00 35	03 00
		IMAGE-4	BE EF	03	06 00	FA C1	01 00	00 35	04 00
	Get		BE EF	03	06 00	09 C3	02 00	00 35	00 00
MY IMAGE IMAGE-1 Delete	Execute		BE EF	03	06 00	71 C3	06 00	01 35	00 00
MY IMAGE IMAGE-2 Delete	Execute		BE EF	03	06 00	35 C3	06 00	02 35	00 00
MY IMAGE IMAGE-3 Delete	Execute		BE EF	03	06 00	C9 C2	06 00	03 35	00 00
MY IMAGE IMAGE-4 Delete	Execute		BE EF	03	06 00	BD C3	06 00	04 35	00 00

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